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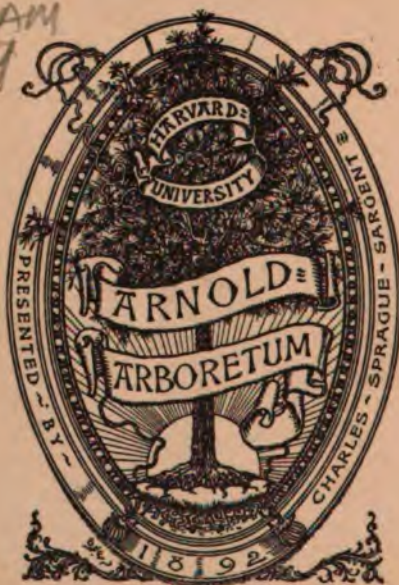
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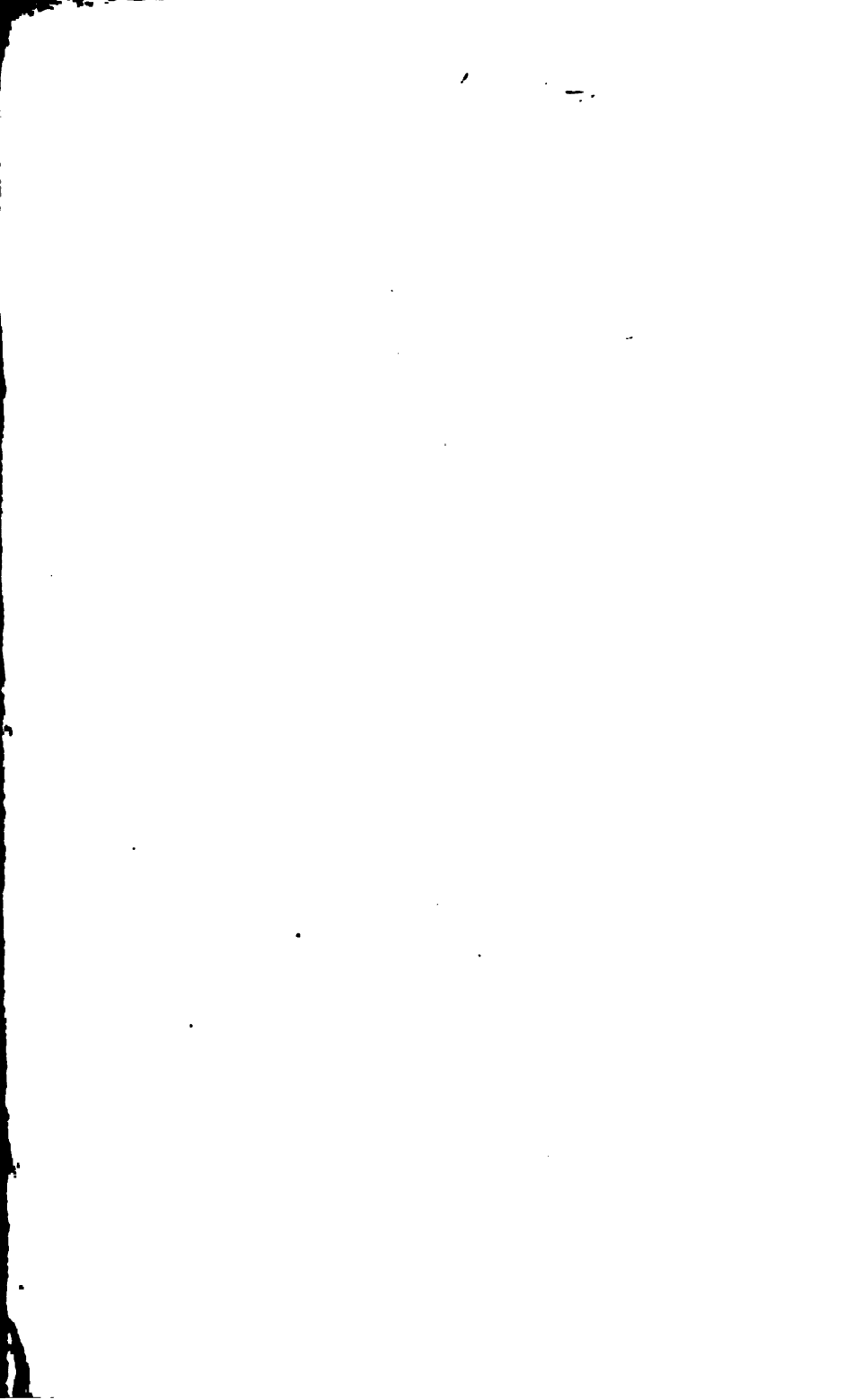
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THE MAGAZINE  
OF  
HORTICULTURE,  
BOTANY,

AND ALL USEFUL DISCOVERIES AND IMPROVEMENTS IN

RURAL AFFAIRS.

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"Je voudrais échauffer tout l'univers de mon goût pour les jardins. Il me semble qu'il est impossible qu'un méchant puisse l'avoir. Il n'est point de vertus que je ne suppose à celui que aime à parler et à faire des jardins. Pères de famille, inspirez la jardinomanie à vos enfans."—*Prince de Ligne*.

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VOL. III.  
1837.

EDITED BY C. M. HOVEY.

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## P R E F A C E .

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WITH the Third Volume we have been induced to change the title of the Magazine: this has been done for several reasons; but principally on account of the various agricultural and horticultural periodicals in the country which have, either for their titles or subtitles, that which we had adopted,—the consequence of which was a tendency to mislead the public in regard to its character, and the true object for which it was established. The alteration, we are highly pleased to learn, has given very general satisfaction to our correspondents and readers.

In this Third Volume the principal improvements are the introduction of the papers upon the new varieties of fruits and vegetables, under the heads of *Pomological Notices*, and *Notices of new Culinary Vegetables*. In the preparation of the former we have had the valuable assistance of Mr. Manning, of Salem, the well known pomologist, who will continue to give us information respecting all the new kinds of fruits which come under his observation; we have had, also, the assistance of other gentlemen and amateurs. For the latter we have relied mainly upon our own resources, hoping, however, in future, to have the aid of those of our friends who feel interested in this important branch of gardening. Our Floricultural Notices in this volume have been given with considerable care, and they will be found to embrace many new and pleasing subjects.

The papers in the Third Volume have been nearly equally divided upon General Subjects, Horticulture and Floriculture; but it is unnecessary for us to point out or particularize any articles: among them will be found some of a very interesting and useful character. The Reviews embrace works of considerable merit, and contain much information. At the close of this volume we have endeavored to give the reports of all the Horticultural Societies throughout the country; but although, at an early day, we

invited our friends to transmit us such reports in season, we have not been furnished with complete returns from all the Societies. This is, however, but the beginning; so far as we have given them we believe they will be found of great interest.

As expressed by us, in the preface to the Second Volume, it was our intention to have given some plans of green and hot-houses in the Third Volume; but, from various circumstances, we have been unable to conform to our wishes. We have in view several plans, and shall probably give some of them in the course of the next volume. The ground plans of gardens, which we also had intended to give, have been deferred, from the same causes as the others. An increased circulation, however, will enable us to carry into execution every thing we have proposed.

The progress of horticulture and floriculture has been rapidly progressive;—new gardens have sprung up in all sections of the country. The West—the great West—where soil and climate are so much more adapted to vegetation—where, a few years since, a cultivated garden did not exist—already abounds in beautiful residences. The South, too,—though it has not kept pace with the Middle and Eastern States—has improved in its taste for horticulture, and a more frequent intercourse with the cultivators of the North will enable her to enrich her beautiful plantations with all the fine fruits and beautiful flowers which abound in their gardens. Our Magazine affords a medium for the interchange of sentiments, and we trust that our correspondents will improve the opportunity. With a wider circulation we shall be enabled to make our Magazine more useful, and better adapted to all parts of the Union. May we hope that our efforts will continue to be such as will give us the support of every horticulturist.

We offer our most cordial thanks to our correspondents and readers, and solicit a continuance of their favors.

C. M. H.

*Boston, Nov. 21, 1837.*

# CONTENTS.

## ORIGINAL COMMUNICATIONS.

### GENERAL SUBJECT.

Notices on the State and Progress of Horticulture in the United States. By A. J. Downing, Botanic Garden and Nurseries, Newburgh, N. Y.	
Description of a New Method of heating Pits for forcing, or for Pits in Stoves, for tropical plants, with Hot Water; first erected in the garden of Mr. S. Sweetser, Cambridgeport. By the Conductor	
Microscopic Observations. No. 1. By a Correspondent	
Forest and Timber Trees, the Osage Orange, &c. By William Kenrick, author of the New American Orchardist	
Notes on some of the Nurseries and Private Gardens in the neighborhood of New York and Philadelphia, visited in the early part of the month of March. By the Conductor	121. 161.
Some Account of Bartram's Botanic Garden. By Alexander Gordon, Botanical Collector	248
Protection against Hail Storms. Notice and Description of the Paragrêle, or Hail Rod. By A. J. Downing, Botanic Garden and Nurseries, Newburgh, N. Y.	261
Notes and Observations on Gardens and Nurseries in the vicinity of Newark, N. J., New York, Hartford and Boston, made during a visit between the 5th and 20th of July, 1837; with some Remarks on the state of Horticulture and Agriculture. By E. Sayers, Landscape Gardener	321
Ringed Fruit Trees; with a notice of some Results following its application to the Pear Tree, discovered by M. Van Mons, of Brussels. By A. J. Downing, Botanic Garden and Nurseries, Newburgh, N. Y.	361
Etablissement Geographique de Bruxelles, fondé en 1836. Par J. F. Vandermaelen. By X.	401

### HORTICULTURE.

Pomological Notices: Notices of one hundred and twenty-six varieties of Pears which have ripened their Fruit during the season of 1836, in the Pomological Garden, Salem, Mass. By R. Manning, Esq.	10. 44
Notices of Culinary Vegetables, new or recently introduced, worthy of General Cultivation in private gardens or for the market. By the Conductor	18. 54
On the Cultivation and Management of the Raspberry. By J. W. Russell, Superintendent at Mount Auburn	21

Some Account, together with a Description, of a new native Seeding Pear. By the Conductor. Notice of the Mabelle Pear. By Messrs. C. & A. J. Downing	44
On the Nature of the varieties of En-grafted Fruit Trees. By the late Mr. Bucknall	57
The Garden. By the Hon. J. Buel, Albany, Conductor of the Cultivator	64
Remarks on the Duration of the Improved Varieties of Fruit Trees. By A. J. Downing, Botanic Garden and Nurseries, Newburgh, New York	90
Notes on the Cultivation of Vineyards in the United States. By A. J. Downing, Botanic Garden and Nurseries, Newburgh, New York	214
Some Remarks upon the Production of new varieties of Strawberries, from Seeds. By the Conductor	241
On Forcing Asparagus. By E. Sayers	364. 444

### FLORICULTURE.

On the Cultivation of the Hydrangea, (H. hortensis.) By the Conductor	63
Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some account of those which it would be desirable to introduce into our Gardens	66. 138. 169. 217. 250. 296. 339. 369. 413
On the Cultivation of Geraniums, (or Ferganolums.) By J. W. Russell, Superintendent of Mount Auburn	94
On the Production of new varieties of Flowers, from Seed, by Cross Fertilization. By the Conductor	97
Remarks on the Production of new varieties of different Flowers from Seed. By an Amateur	128
Observations on the Management of the Auricula and Polyanthus during the Spring Months. By J. Clark	130
Observations on the Camellia and its Varieties, with some Account of its Introduction into Great Britain and this country. By M. P. Wilder	133
On the Production of Roses from Seed, and some Remarks respecting the treatment of the Yellow Noisette Rose. By J. W. Russell, Superintendent at Mount Auburn	136
On the Cultivation of the Tree Mignonette, and some Remarks on raising Roses from Seeds. By L. Boll, Florist, New York	216
Roses—new Varieties. By An Amateur	246
Some Remarks on the herbaceous Peonies, together with a description of most of the Species and Varieties, and a few others	

servations upon their Propagation, Cultivation, &c. By the Conductor	283	On the Cultivation of Hyacinths. By the Conductor	404
On the Cultivation and Treatment of Pelargoniums. By Thomas Hogg, Nurseryman, New York	292	Notice of some rare and beautiful Plants found in Hubbardston, Mass., during the months of May, June, July and August, 1837. By John Lewis Russell, Prof. Bot. and Veg. Physiol. to the Mass. Hort. Soc.	410
Observations on the Cultivation of the <i>Rhododendron maximum</i> . By J. W. Russell	330	Notice of some rare and beautiful Plants growing in the vicinity of Plymouth, Mass. By John Lewis Russell, A. M., Prof. Bot. and Veg. Physiol. to the Mass. Hort. Soc.	441
Some Account of the <i>Echinocactus Eyriessii</i> , with a few observations upon the Management of the Cactaceæ in general. By the Conductor	331	Calls at Gardens and Nurseries	26, 102, 261 305, 346, 376
Observations on the Treatment of several Genera of the Natural order Iridaceæ. By the Conductor	365		

## REVIEWS.

Translation of a Memoir entitled "Beitrage zur Lehre von der Befruchtung der Pflanzen," (Contributions to the Doctrine of the Impregnation of Plants.) By A. J. C. Corda. Published in the 17th Vol. of the Nova Acta, Physico-medica Academiae Cæsar. Leopold. Carol. Naturæ Curiosorum, Breslau and Bonn. 1835—with Prefatory Remarks on the Progress of Discovery relating to Vegetable Fecundation. By Asa Gray, M.D. Read before the Lyceum of Natural History, New York, October 24, 1836, and published in Silliman's Journal for January, 1837	140	The Young Gardener's Assistant, containing a Catalogue of Garden and Flower Seeds, with practical directions under each head for the cultivation of Culinary Vegetables and Flowers. Also, directions for cultivating Fruit Trees, the Grape Vine, &c.; to which is added a Calendar, showing the work necessary to be done in the various departments of Gardening, in every month of the year. Seventh edition, improved. By Thomas Bridgeman. 1 vol. 12mo.	262
Letters about the Hudson River and its Vicinity, written in 1835—6. By a Citizen of New York. 1 vol. small 12mo.	146	Remarks on the Natural Order Cycadaceæ, with a description of the Ovula and Seeds of <i>Cycas revoluta</i> . By A. J. Downing. Read before the Lyceum of Natural History, New York, and published in Silliman's Journal for April and May	308
Address delivered before the Massachusetts Horticultural Society, at their Eighth Anniversary, Sept. 17, 1836. By Ezra Weston, Jr. Pamphlet, 8vo.; with some observations on the prospects of the Society	187	Boston Journal of Natural History, &c. Part I. No. 12. Hilliard, Gray & Co. An Address delivered before the Boston Natural History Society, June 7, 1837	381
		Literary Notices	194

## MISCELLANEOUS INTELLIGENCE.

GENERAL NOTICES.—Perkins's System of Heating by Hot Water, 32; Cause of Mildew, New method of sowing Grain, practised in the South of Europe, 33; The Yellow Rose in Italy, Mosses, Lichens and Insects, Sap of Plants, An Improvement in Tanning, 103; Preservation of Fruit, Principles of Vegetation, 109; The Stumps of the Silver Fir (*Abies Picea*),

increase in diameter after the Tree is felled, 195; Conservatory, 267; Destruction of Insects by Manual Labor, Efficacy of Cotton in preserving Fruit, New mode of destroying Ants, 269; Influence of Vapor on Vegetation, 311; Grapes ripened without the sun's rays, Zinc Labels, 312; Value of Specific Characters, 349; Tulips,



Connection between Meteorology and Vegetation, 350; A hybrid between the Cabbage and Horseradish, Transmitting Seeds from China, 351; *Cereus peruvianus*, *Polypodium corcovadense*, *Wistaria Consequana*, *Kyanising* wood for garden purposes, 424; Discovery of a new flower, *Sago*, 426; *Gamboge*. The Jasmine, Extraordinary dragon's-blood Tree, 427; The *Arucaria*, 428.

FOREIGN NOTICES.

**England.**—Growing Plants in glass cases, 33; London Horticultural Society, Genus *Ribes*, Dahlia shows, 110; Dodds's Mary Dahlia, 111; Metropolitan Society's Show for the season 1837, 150; *Chrysanthemum* Exhibitions, 153; Double Chinese Primrose, West's St. Peter's grape, Dry rot in dahlias, 186; *Rhododendron Cunninghamii*, 233; New mode of heating by hot water, upon the same plan as that invented by Mr. Hogg, 234; British Agriculture, 270; Growing the *Epiphyllum truncatum*, by grafting upon *Cereus triangularis*, 272; Open spaces for the exercise and recreation of the people, 319; Growing grapes in the open air, Seedling *Cinerarias*, *Wistaria Consequana*, 313; Raising Plants by cross-breeding, Grafting *Epiphyllum truncatum* on *Pereskia aculeata*, 331; *Camellia reticulata*, 337; Boiling seeds previous to Planting, *Cilanthus paniculus*, 338; London Horticultural Society, 428; An Exhibition of Plants took place at Worton Lodge, *Spiraea japonica*, Metropolitan Society of Florists and Amateurs, 429; Dahlia Shows, 430. . . . .  
**France.**—Floral commerce of Paris, 37; The formation of Cork, A hybrid Apple, 352; Colonial Elm Tree at Brignoles, 430.  
**Belgium.**—Grand Show of Plants at Ghent, in March last, 431.

DOMESTIC NOTICES.

Mr. Russell's Garden and Nursery at Worcester, New Seedling Pear, *Urania speciosa*, St. Germain Pear, 35; Aquatic Plants, Lichen Tree, The Estate of the late Dr. Hosack, *Plexopora* or American Holly, 36; Chinese Mulberry, *Morus multicaulis*, 37; Hardiness of young Fruit Trees in elevated situations, 74; *Maurandya Barcinensis*, Mrs. Maryatt, Garden Engines, The Red Stock, (*Matthiola incana* and *annua*,) 75; Inarching *Camellias* by inserting the bottoms of the scions in a phial of water, *Pæonia Moutan papaveracea* var. *Rawesii*, 76; Forty-fold Potatoes, 78, 197; *Arucaria imbricata*, *Loisa nitida*, 76; *Crocus inlwater*, *Astrapea Walllichii*, 112; *Minulus cardinalis*, Monthly Cabbage Rose,

Culture of the Sugar Beet, Manufacture of Silk and Cotton, 113; The double Ayrshire Rose, The yellow Noisette Rose, Forced Beans, 114; Everbearing Raspberry, Hyacinths, 154; Early Grapes, 196; Prize-fighter Cucumber, 196; Mr. Walker's Tulip Show, *Gentiana acutis*, 235; *Yucca filamentosa*, The New Zealand Flax, Sowing large patches of Mignonette, Seven years' Pumpkin, Origin of the Hermitage Vineyards, 236; Importing Plants in glass cases, 237; Improving strong Clay Soils, 273; *Wistaria Consequana*, *Schizopetalon Walteri*, Bone-dust for Rye, Wheat and Grass crops, &c., Large specimen of the *Cyclamen persicum*, 274; Large *Magnolia glauca*, 275; *Pimberts*—Whortleberries, 313; Essex County Natural History Society, Downer Cherry, Private Exhibition of Flowers at Philadelphia, New seedling Pansy, Fountains in the Public Squares in Philadelphia, 353; *Phlox Drummondii*, 354, 433; *Verbena venosa*, Green and hot-house Plants, *Rhododendron arboreum*, Baden Corn, 354; New York Horticultural Society, *Hippophae rhamnoides* fertilized by the *Rhephedra*, The yellow Locust, *Robinia Pseudacacia*, 389; New mode of preserving Fruit, Cow Cabbage, or Caesar's Kale, The Amber Crab apple, Large Valparaiso Squash, *Viola tricolor*, Gradual Naturalization, 433; Pines of California, Plants that stood out unprotected last winter, in Athens, Ga., Hybrids between *Ipomoea* and *Convolvulus*, *Cereus triangularis*, Seckel pear, *Cucullis Bowiei*, 434; Fine Dahlias exhibited this season, 435.

**Reviews, Criticisms, &c.**—Malta Melon, *Maclura aurantiaca* 36; Tree Mignonette, 37; *Rosa ferax* & *Kantschatska rose* identical, *Sago Palm*, 77; In publishing the names and characters of the *Camellia*, 114; Plants in flower during the winter months, 115; Grafting *Camellias* à la *Blauke*, *Polinsétia pucherrima*, 116; Locke pear, 155; Importing Plants in glass cases, Destruction of Slugs that infest rose bushes, 276; Raising Roses from seed, 315; Management of old *Geraniums* and other plants, 354.  
**Retrospective Criticism.**—Seedling Roses, 275; West's St. Peter's Grape, 276; Roses, new varieties, *Gardogula Hookeri*, 314; Marchioness of Tavistock Dahlia—in answer to the Conductor, 445.  
**Massachusetts Horticultural Society**, 37, 77, 116, 155, 197, 277, 315, 355, 390, 435, 461.  
**Exhibitions of Horticultural Societies**, 449.  
**Faneuil Hall Market**, 38, 78, 118, 158, 198, 238, 278, 318, 358, 438, 462.  
**Fulton Market**, 237, 277, 317, 357, 397, 437.  
**Meteorological Notice**, 39, 79, 117.  
**Obituary Notices**, 117, 156, 463.  
**Horticultural Memoranda**, 40, 80, 119, 159, 199, 239, 279, 319, 359, 399, 439, 464.

LIST OF PLANTS, 465.

LIST OF ENGRAVINGS.

MODE OF HEATING.

- 1, 2, Description of a Mode of applying heat to pits in Stoves, for Tropical Plants, with hot water . . . . . 24, 25

## LIST OF CONTRIBUTORS.

A. B. C.,	.	.	.	.	.	.	.	.	.	114	Lowell, Hon. J.,	.	.	.	.	.	.	.	.	116
A. J. D.,	.	32.	33.	34.	74.	75.	237.	274.	389	M. T.,	.	39.	79.	119.	159.	199.	239.	279.	319	
A Correspondent,	.	.	.	.	.	.	.	.	41	.	.	.	.	.	.	.	359.	399.	436.	463
An Amateur,	.	.	.	.	.	.	.	.	75	M. A. W.,	.	.	.	.	.	.	.	.	.	434
An Amateur,	.	.	.	.	.	.	.	.	128,	246	Manning R., Esq.,	.	.	.	.	.	.	.	.	10. 44
An Admirer of <i>Rosa faxoz</i> ,	.	.	.	.	.	.	.	.	77	N.,	.	.	.	.	.	.	.	.	.	36
Boll, L.,	.	.	.	.	.	.	.	.	216	N. G. C.,	.	.	.	.	.	.	.	.	.	276
Buel, J., Conductor of the <i>Cultivator</i> ,	.	.	.	.	.	.	.	.	84	Philocrocist,	.	.	.	.	.	.	.	.	.	112
Buist, R.,	.	.	.	.	.	.	.	.	315	P.,	.	.	.	.	.	.	.	.	.	449
C.,	.	.	.	.	.	.	.	.	274	P. B. H., Jr.,	.	.	.	.	.	.	.	.	.	37. 76
Clark, J.,	.	.	.	.	.	.	.	.	130	R.,	.	.	.	.	.	.	.	.	.	36. 76. 434
Downing, A. J.,	.	.	.	.	1. 90.	214.	281.	361	R. B.,	.	.	.	.	.	.	.	.	.	.	112. 113
Downing, C. & A. J.,	.	.	.	.	.	.	.	.	53	Rosa,	.	.	.	.	.	.	.	.	.	113. 314. 315
Gordon, Alexander,	.	.	.	.	.	.	.	248.	256	Russell, Prof. John Lewis, A.M.,	.	.	.	.	.	.	.	.	.	194. 410. 441
Hogg, Thomas,	.	.	.	.	.	.	.	.	292	Russell, J. W.,	.	.	.	.	21. 94.	136.	276.	330	.	
J.,	.	.	.	.	.	.	.	.	155	S.,	.	.	.	.	.	.	.	.	.	36. 37. 276
J.,	.	.	.	.	.	236.	237.	274.	354	Sayers, E.,	.	.	.	.	.	.	.	.	.	321. 364. 444
J. B.,	.	.	.	.	.	.	.	.	155.	314	Three-colored Violet	.	.	.	.	.	.	.	.	433
J. H.,	.	237.	277.	318.	358.	389.	398.	438	Walker, S.,	.	.	.	.	.	.	.	.	.	.	445
J. L. R.,	.	.	.	.	.	.	.	387.	416	Wilder, M. P.,	.	.	.	.	.	.	.	.	.	132. 445
J. W. K.,	.	.	.	.	.	.	.	.	355	X.,	.	.	.	.	.	.	.	.	.	410
Kenrick, Wm.	.	.	.	.	.	.	.	81.	114	**,	.	.	.	.	.	.	.	.	.	433
L.,	.	.	.	.	.	.	.	.	449	.	.	.	.	.	.	.	.	.	.	

## CORRECTIONS.

All the names of plants, either generic or specific, enumerated in the body of the work, which are wrongly accented, the derivations incorrect, or erroneously spelled, are corrected in the list of plants at the end of the volume. Besides those errors indicated at pp. 77, 155, and 435, are the following:—

In p. 53, 91 lines from top, for "James" read "Isaac."

In p. 161, 13 lines from the bottom, for "correspondences" read "correspondence."

In p. 189, 19 lines from bottom, for "plant," read "rose."

In p. 217, 12 lines from top, for "two" read "one."

In p. 309, 10 lines from top, after "crop," add "of onions."

In p. 326, 16 lines from top, for "Crog's" read "Throg's."

In p. 372, 11 lines from bottom, for "Soularge Bodin," read "Soulange Bodin."

# THE MAGAZINE OF HORTICULTURE.

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JANUARY, 1837.

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## ORIGINAL COMMUNICATIONS.

ART. I. *Notices on the State and Progress of Horticulture in the United States.* By A. J. DOWNING, Botanic Garden and Nursery, Newburgh, N. Y.

If agriculture, as is generally conceded, has strong claims to be considered the first of the arts, horticulture must undoubtedly have been one of the first pleasures and recreations of the human family. The earliest care of man, in a primitive state, would probably be to rear and gather for himself a sufficiency of the necessaries of life, doubtless first recognised in the shape of vegetable food. Afterwards, attracted and gratified by the pleasant flavor of fruits, and the gay hues of blossoming plants, he would transfer them to the neighborhood of his own habitation, and, enclosing them, to protect them from wild animals, he would find himself in possession of a *garden*. What were the first flowers thus appropriated to the embellishment of the garden, tradition unfortunately does not inform us; but the ingenious speculations of early writers have, we believe, ended by naming the *fig* as the first fruit submitted to the cares of culture.

The possession of fine gardens appears to have been highly appreciated by all nations who have exhibited the least trace of civilization, from the earliest ages. Indeed, in oriental countries the very name is synonymous with enjoyment and happiness—the *גן*, *eden*, of the Jews, signifying a place of pleasure and delight—the *Hesperides*, or garden of fruits, of mythology, being the habitation of the heathen gods, and the heaven or *paradise* of Mahomet, abounding with crystal fountains and shady groves, in which he promised to his disciples a thousand years of enjoyment—all show with what feelings of enthusiasm and admiration

gardens were beheld by the ancients. Of the gardens of Egypt, Babylon, and Persia, traditions have been preserved, which lead us to believe them to have been of the most splendid description: and the classical writers have recorded such accounts of the Greek and Roman gardens, as to leave no doubt of their having been on a scale of magnificence and beauty corresponding with the superb edifices which they surrounded.

In modern times, gardening received a powerful impulse from the princes and nobles of Europe, which has created a general taste for the possession of fine gardens and rural pursuits throughout their respective countries. The magnificent garden of Versailles, on which Louis XIV lavished two hundred millions of francs, the *chef d'œuvre* of the great Le Notre, in the geometric style, spread the taste for that style throughout France, and, indeed, for a time, the whole of Europe. Peter the Great, Catherine II and Potemkin, who may justly claim the honor of civilizing Russia, have also exhibited some of the most brilliant specimens of the gardening art in that country. In Holland the taste for floriculture in particular has long been national; and the extent to which the passion for this pleasing pursuit has been, and may be, carried, is sufficiently proved by the *tulip-mania*, one of the most singular examples of speculation on record, which broke out in that country. Among the Germans, horticulture is carried to great perfection. The road-sides in many places are lined with fruit trees for miles, and several of the cities are surrounded with highly cultivated pleasure-grounds for the recreation of the inhabitants. The late emperor, it is well known, spent several hours, daily, in a common gardener's dress, working in his own grounds. The princes of the smaller German provinces throw open their fine parks and ornamented grounds to the public, and the results are a general diffusion of horticultural taste throughout the country, and a thrifty, well-disposed population, strongly attached to the soil they cultivate. As scientifically practised, horticulture probably stands as high in England, at the present day, as in any other country. This arises both from the great wealth and unlimited means of many of the landed proprietors, and the fine taste for rural pursuits possessed equally by the nobility and all other classes. The fine old parks, of immense extent, the polished and well kept pleasure-grounds, and the elegant glass structures for exotics, in which the cultivation of many tropical fruits is carried to a perfection which rivals, and, in some instances, even surpasses that of their native climes—all attest a high state of the art, as yet unexcelled by any nation. The Horticultural Society of London, numbering among its members the most distinguished persons of every rank and station, as well as practical men, has exerted an astonishing influence for the promotion of horticulture, not only at

home but in every country, connected with England, in either hemisphere. Collectors have been sent out on exploring expeditions, experiments have been made, grafts, seeds and cuttings of valuable or new plants distributed, and scientific discoveries and improvements in culture published—all of which have been attended by the most beneficial results.

Horticulture in the United States, it will readily be perceived, has had to contend with many obstacles. Separated from the old world by a wide ocean, it was for a long time with difficulty that any of the rarer and finer vegetable productions of the eastern continent could be brought out by emigrants. The introduction of any thing farther than mere culinary vegetables for the kitchen garden, and a few fruits for the orchard, was therefore necessarily slow. With but little superfluous individual wealth, and without any assistance or examples from a government, which, struggling into existence, could only find resources to encourage the useful and not the agreeable, whatever has been done has been effected by private means, and to gratify private taste. This, however, at the present time, is so much as to afford cause of the highest gratification, and gives reason to hope for the fulfilment of every reasonable anticipation for the future.

Philadelphia has long claimed, and, in some respects, perhaps, still merits to be considered, the first city in point of horticulture in the United States. This is owing in some degree to the early settlement of the town, but in a great measure to its having been, at an early period, the residence of a few devoted botanists and amateurs, whose zeal infused a corresponding taste among their fellow-citizens. First among these, and, indeed, deserving to be placed first among the botanists and horticulturists of America, stood John Bartram. Filled with the love of nature and science, this naturalist explored, almost at the peril of his life, the swamps, the mountains, the borders of the lakes, and, in short, every part of North America, where he thought a beautiful plant or a new forest tree might be discovered. The fruits of these expeditions were brought home and planted in his garden, established more than one hundred years ago on the banks of the Schuylkill, in which are at this moment growing some of the finest specimens of American trees to be found in the world. Bartram's devotion to these pursuits becoming known abroad, his correspondence extended itself to the most distinguished *savans* of Europe. Linnæus, Collinson, Gronovius, Fothergill, Hans Sloane, and many others, were constantly in the habit of receiving from him the productions of the new world, and sending him the rarities of the old in exchange: and thousands of the finest trees in the parks of Europe have been reared from seeds sent from Bartram's Botanic Garden. At Hamilton's seat, the Woodlands, near Philadelphia, the first

collection of exotic plants, of any importance in the United States, was commenced. As early as the year 1800 this collection was, as we are informed, exceedingly rich in all the fine species procurable either in Europe or the West Indies; and, judging from the many noble specimens still in existence here, (though scattered in the hands of various persons,) it must have abounded in plants extremely rare at that period.

For a long time the grounds of Mr. Pratt, at Lemon Hill, near Philadelphia, have been considered the show-garden of that city: and the proprietor, with a praiseworthy spirit, opening his long-shaded walks, cool grottoes, jets d'eau, and the superb range of hot-houses, to the inspection of the citizens, contributed in a wonderful degree to improve the taste of the inhabitants, and to inspire them with a desire to possess the more beautiful and delicate productions of nature. This taste gave rise to, or supported, many commercial gardens, and it is probable that at this time Philadelphia can produce, in the different establishments of Messrs. Carr, Landreth, Buist, McArran, Sherwood, and others, as great a number of tender exotics as are to be found in the Union out of that city. The good effects of these establishments, and of the examples of the amateurs of Philadelphia, may be seen in the general prevalence of taste which evinces itself in the fine avenues of trees bordering the streets, the great beauty of the public squares, and the variety of trees which they contain, and in those gratifying evidences of refinement which make their appearance in every street in the shape of a few pots of flowers on the balcony, or in the windows of the houses. The Horticultural Society of Philadelphia occupies a large sphere of usefulness, and, through the means of its annual exhibitions, which are thronged with spectators, disseminates a knowledge of the progress of horticulture, and a taste for gardening pursuits through the whole mass of citizens.

New York being the great mart of commerce, and its inhabitants chiefly engaged in business, there has not been found in its vicinity so great a number of persons of leisure to devote to pursuits of this nature, as in some of our other cities. The large commercial garden of the Messrs. Prince, at Flushing, into which the elder Prince introduced a great many of the most valuable productions of European soil, and the flower establishment of the Thorburns, in New York, occupied by them as a seed store, but which, from its extent and variety, might more properly have been called a horticultural museum, have been the most prominent points of interest in the horticulture of New York. M. Parmentier established, a few years since, a large nursery, and introduced very successfully into this country the modern style of laying out grounds; but his extensive garden at Brooklyn has unfortunately been broken up since his death. Mr. Hogg

is probably the best cultivator of exotics now in New York. The most distinguished amateur and patron of gardening, in every sense of the word, in this state, was the late Dr. Hosack. Hyde Park, on the Hudson, the seat of this gentleman, has been probably the best specimen of a highly improved residence in the United States. Situated on the margin of the river, with one of the noblest of prospects, smooth gravelled drives and walks leading to every desirable point of sight, over an estate of eight hundred acres—the park large, well wooded, and intersected by a fine stream—a handsome and well filled range of hothouses, extensive shrubberies, and a separate and very complete kitchen garden, the whole in the highest order—all rendered it a first-rate residence. Dr. Hosack's acquaintance abroad enabled him to introduce many new fruits and plants, and some of our most celebrated native fruits were placed in the hands of horticulturists in Europe through his means. David Thomas, of Cayuga, and Judge Buel, of Albany, have also contributed largely to the propagation of a taste for horticulture in the northern and western parts of the state. The latter gentleman, whose laudable zeal in the diffusion of science and sound practical knowledge among the agriculturists of every part of the Union is well known to all, has also been one of the most unwearied of horticulturists, and has introduced into, and distributed from, his nursery grounds at Albany, within a few years, a great variety of fruits and plants, and has given freely to the public the results of his experiments in culture, not a little valuable to those, who, in following the directions of foreign authors, find it necessary to make so many deviations to suit the difference of climate in the same parallels of both hemispheres. There are, besides the New York Horticultural Society, three provincial or county societies in this state; and the great number of handsome villa residences, with neat grounds springing up in every section, especially on the banks of the Hudson and on the shores of the lakes, afford most satisfactory proof of the progress of general taste in rural pursuits throughout the whole state of New York.

In Boston, horticulture is of late making rapid strides. In a higher latitude than Philadelphia or New York, many of the more delicate fruits, as the peach, apricot, nectarine, and grape, which ripen abundant crops in the middle states, rarely attain full maturity in the open air here. This is of course favorable to gardening as an art, and Boston and its vicinity, in its forced fruits, and fruits ripened under glass, is far before any city in the Union. Delicious stone fruits are raised with but little care, under shelter and upon walls, and the *vineries*, at the different gentlemen's seats in the neighborhood of the city, produce annually tons of the finest foreign grapes. Pomology has many enthusiastic votaries here, at the head of which it gives us pleasure to

name Mr. Lowell and Gen. Dearborn, Mr. Manning, Mr. Kenrick and Mr. Downer; gentlemen, who, by their correspondence with the horticultural societies of Europe—with Mr. Knight, Professor Van Mons, of Belgium, and other distinguished foreign culturists, have contributed more than any others in importing and disseminating here the superior varieties of fruit lately originated in England and on the continent. The nursery establishments of Messrs. Kenrick and Winship are magazines of all the most useful products of gardening, and the wealthy amateurs of the vicinity of Boston, Mr. Cushing, Col. Perkins, Mr. Wilder, and many others already noticed in this Magazine, whose collections are rich both in hardy plants and tender exotics, import every beautiful or new plant, however expensive or difficult of transportation. The various recent methods of heating greenhouses by hot water were first extensively introduced here; and some of the conservatories, tastily designed, with floors paved with marble, concealed pipes of hot water warming their atmospheres, and improved modes of ventilation, are almost perfect models for such garden structures. The Massachusetts Horticultural Society is perhaps the most spirited in the Union, and the establishment of a Horticultural Magazine here, the first of the kind among us, has had no small effect in creating a taste for rural pursuits, and increasing the knowledge of new plants and improved modes of culture in the neighboring states.

In Salem we have understood there is quite a taste springing up for the pursuit of horticulture. There is a society existing here for the encouragement of Natural History in its various branches, and horticulture and botany have received a powerful impulse by the efforts of the members, embracing among their number gentlemen of wealth and knowledge, who have leisure time to devote to gardening. The pomological garden of Mr. Manning here contains the largest number of fine fruits, particularly pears, to be found in the Union. His correspondence with Dr. Van Mons and Mr. Thompson of the London Horticultural Society's garden, has enabled him to procure every variety desirable. Excellent collections of plants are already to be found in several gardens; and others are being made, which will ere long place this newly formed city—in the scale of horticulture—second only to the larger and more populous ones which we have already named.

Of the horticulture of the states south of the Potomac, excepting Maryland, we can say but little. The Maryland Horticultural Society, judging from the published report of its proceedings, appears to be well supported, and we observe the exhibition of many rare plants by the amateurs of the neighborhood of Baltimore.

At Washington the Columbian Horticultural Society, which



has been established about three years, seems in a very flourishing state; and from the second and third annual reports, the latter of which has been lately published, the labors of the society, though numbering but a few members, have already been attended with very important results. In the culinary department, we doubt much if any horticultural society in the Union has exerted the same zeal, or produced equal specimens. The great variety exhibited at the weekly meetings should put some other societies to the blush, whose attention should be more directed to that which is really useful, than to that which is fanciful and luxurious. The amount of money awarded to the members in premiums, in the shape of medals, silver medals, &c. is very considerable, and has tended to the creation of a competition which has been the means of exciting the members to greater exertions. The annual exhibitions of the society have been crowded with spectators, and, were it possible to find a sufficient display of flowers at the season when the city is as thronged as it usually is during the session of Congress, we might anticipate a still greater extension of a horticultural taste. It gives us great delight to notice the part the ladies take in these exhibitions, and gives us every reason to hope that we may, ere long, find our fair country-women here animated with the same zeal which distinguishes one of them abroad.

In Charleston a Horticultural Society was established in 1830, which we hope will have a good influence in that quarter. Of the state of culture in the Carolinas and the states bordering on the Gulf of Mexico, it is difficult to speak in general terms, as there is every variety of cultivation exhibited, from the first breaking up of the virgin soil to high keeping of the gardens of some of the enlightened planters, where the most choice and beautiful plants are grown in their full perfection. Mr. Legare, the late able editor of the *Southern Agriculturist*, has made many praiseworthy exertions in the cause of horticulture at the south. The gardens of Dr. Young, of Savannah, rich in rare plants from every part of the world, that of Major Le Conte, of Riceborough, and of Dr. Wray, of Augusta, Geo., the former with its superb collection of bulbs, and the latter with its succulent plants, and those of Dr. McRee, Wilmington, Mr. Oemler, Savannah, and the late M. Noisette, Charleston, have been considered for a long time inferior to no private collections in the Union. The field open to active horticulturists in the south is of no mean extent. They have an excellent opportunity by the acclimation or naturalization of the finer and more valuable plants of more southern climates, to embellish their grounds to an endless extent, and, what is of still greater importance, to give to the country many new articles for staple produce, which, we feel satisfied, only need a little care and attention to become per-

fectly naturalized in our soil. The limits of these remarks will not permit us now to point out the great number of plants deserving attention in this way, but the *agave* producing the *sisal hemp* and the *New Zealand flax*, which the French have successfully introduced into their colony at Algiers, suggest themselves as objects worthy of immediate attention.

The branch of the art least understood and least practised in the United States is *landscape gardening*. The modern or picturesque style of laying out grounds is most generally attempted of late, and, we regret to see, in some cases where the geometric would be more in character with the country and the situations. The finest single example of landscape gardening, in the modern style, is at Dr. Hosack's seat, Hyde Park, and the best specimens of the ancient or geometric style may probably be met with in the neighborhood of Philadelphia. In truth, we have but barely made a commencement in landscape gardening, and as the examples already existing on this side of the Atlantic are but rare, and this branch of the art chiefly in the hands of the proprietors themselves, we shall probably have to witness a great variety of attempts, which will not always be followed by the most successful results as to effect: but the public feeling is alive to improvement on this subject, and we hope much from the general good taste of the proprietors who usually make themselves acquainted with the best European authors on the subject.

Floriculture receives more attention from all persons here than any other branch of gardening, kitchen gardening excepted. The direct communication maintained, through our shipping, with almost every foreign port, places in our possession a great portion of the floral treasures or novelties of various quarters of the globe. Large annual importations of the finest bulbs are made from Holland, plants and seeds from England and France, and numerous fine seeds are received by amateurs from China and the Cape of Good Hope. As a proof of the extent to which the cultivation of a favorite plant can be carried here, we may adduce the dahlia, of which there have been so many splendid shows both by horticultural societies and private individuals within the last three years. It is probable that, including fine native seedlings, nearly two thousand varieties of this fine flower have been shown the past season.

The facility with which abundant crops of fruit can be obtained in all the more temperate parts of the Union has led to a very extensive demand for the finer varieties, and, as a consequence of this, all the delicious new European sorts are finding their way into our soil: while for some fruits, as the apple, our climate has been found so peculiarly well adapted, as to lead to a considerable production and export for foreign market. In *kitchen gardening* nearly all the best vegetables are cultivated,

though many of the more delicate ones are not so generally to be seen in the farmers' gardens as we could desire. This, however, arises from ignorance of their excellence, which will gradually give way as their good qualities become more known through trial. The principal operatives in our best gardens are as yet foreigners, chiefly from England—the demand for persons of this description being yet hardly sufficient to make it a distinct trade or profession, as in Europe. Our easy access to all the best works published in England, while it has greatly aided our practical advancement, has of course precluded the necessity of many original books on the same subjects here; but several excellent practical works have made their appearance, and obtained an extensive circulation here, among which we will mention, *Coxe on Fruit Trees*, *Thatcher's Orchardist*, *McMahon's Gardening*, *Prince's Treatise on Horticulture*, and *Pomological Manual*, *Fessenden's American Gardener*, *Hibbert's Flower Garden Directory*, *Bridgeman's Gardener's Assistant*, *Wilson's Kitchen Gardening*, *Kenrick's American Orchardist*, &c. The various agricultural periodicals have also aided much in increasing horticultural taste and knowledge. Loudon's *Encyclopedia of Gardening*, the most valuable compilation on the subject in any language, is the standard work here, as in England.

After the statement in this hasty and imperfect notice, and from the fact that there are ten horticultural societies now in operation among us, it will be inferred that horticulture is making rapid progress in the United States. Such is really the case. But what we especially deplore, is the fact that not one of the above ten societies, nor any one of the corporations of our numerous cities, possesses a single acre of land appropriated to the purposes of a public experimental garden! For proofs of the great and happy influence such an establishment, properly conducted, might and would have, we only need appeal to the single and well known example of the garden of the Horticultural Society of London. The good effects of the system of careful culture, liberal exchanges and donations, and accurate experiments, made at that garden alone, have already been experienced in every quarter of the globe, and not less here than in any other country. That some of our societies will soon find means to carry a similar plan into execution we ardently hope. If, however, we were allowed to suggest a plan for a public garden, to be of the most extensive utility, we should undoubtedly take for a model that of the great *Jardin des Plantes*, at Paris, and make it, like that, a national establishment, supported by government. Similar to that garden, it should include professorships of botany and agriculture, which would constitute it a perpetual school of those branches. Its primary objects should be to collect the most val-

uable or remarkable plants from all countries,—to propagate and distribute them through the different states,—to exhibit the most scientific and approved methods of culture, and to furnish a complete scientific agricultural and gardening school for the whole Union. If the introduction and acclimation of two plants, *cotton* and *indigo*, have added millions to the wealth of this country, is it preferable or wise that we should leave future experiments, in the introduction and naturalization of a thousand plants which might become of extensive importance or general benefit, to chance or accident alone, or expend a small portion of our surplus wealth in creating a national garden, in which one of the constant objects should be, to introduce and experiment upon every vegetable likely to be of the least value in the arts, medicine or domestic economy? We may not have reached the precise period of time for the creation of such an institution, but that it will soon be commenced, and be of the most extensive benefit in its operations to every class of our numerous landed proprietors, we cannot reasonably entertain a doubt. In the mean time, the way is preparing, and the necessity is beginning to be strongly felt in the public mind for such a garden, through the means of a general increase of taste for botany, and all branches of agriculture, horticulture and rural pursuits.

Yours,

A. J. DOWNING,

*Botanic Garden and Nursery, }*  
*Newburgh, N. Y. }*

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ART. II. *Pomological Notices: Notices of one hundred and twenty-six varieties of Pears which have ripened their Fruit during the season of 1836, in the Pomological Garden, Salem, Mass.* By R. MANNING, Esq.

IN presenting to our readers information respecting the different varieties of fruit cultivated in, or worthy to be introduced to, our gardens, we shall be assisted by several of our most eminent pomologists. But for our principal knowledge we shall be indebted to Mr. Manning, of Salem, whose information respecting fruits is undoubtedly greater than that of any other person in this country. His exertions are, to our horticulturists, what those of the London Horticultural Society have been to the English cultivator; and he deserves the gratitude of every lover

of fine fruit for the assiduity with which he has labored, in endeavoring to correct the nomenclature of our fruit catalogues, which have been, and, indeed, still are, confusion "worse confused." Next to Mr. Manning we may mention our most intelligent correspondents, Messrs. C. & A. J. Downing, of the Botanic Garden and Nursery, Newburgh, N. Y. whose collection of fruit trees is very extensive, and embraces many of Dr. Van Mons's superior new sorts. From these gentlemen we shall constantly receive such information as they are in possession of, and all that is new or interesting we shall speedily lay before our readers.

We do not intend, in our notices of new fruits, to recommend any that may be called superior, in peculiar situations and climate, or whose merits are given from the results of short experience. Those only which have been ascertained to be of great excellence, and whose identity with the true sorts shall be acknowledged by our friends above named, we shall deem proper to offer to the notice of our readers. If we were to pursue any other course, it is easy to perceive that, as regards the correcting of synonymes, our time and labor would be lost, and our catalogues of fruit would still remain in inextricable confusion. As it is, we consider that our list of fruits, as corrected by Mr. Manning, will contain the most important information respecting them that has ever been published in this country, and such as will not be found in any other American work.

The sources from which Mr. Manning's trees have been obtained are such as to give the most favorable opportunity to judge of their correctness. To leave no doubts, the same varieties have been received from the most celebrated nurseries of England and France: he has also received nearly all the sorts in cultivation from the various nurseries in the United States. These have all been compared, both in the flower, leaf, wood and fruit, their synonymes arranged, and finally settled upon, after the most careful and deliberate investigation. Mr. Manning has received grafts from the London Horticultural Society's garden, direct from Mr. Thompson, and also from Dr. Van Mons, of Belgium, containing the finest of his superb varieties of pears, which he has been so successful in raising: among these are a great number which have never been named, but were received under numbers; and some of the very best which were latterly produced do not exist *only* in Mr. Manning's collection, the trees having been destroyed immediately after the grafts were cut. An account of these will be forthcoming as soon as they have produced fruit.

The great desire to possess the new varieties of fruit which have within late years been obtained from seed by Knight and Van Mons, and several of the French and Flemish horticultur-

ists, has led to the confusion which exists among nurserymen respecting these fruits: in the eagerness to procure new sorts, grafts have been taken in most instances from trees before they have produced fruit, and this same practice has been continued until no trace could be found of the original tree. When a tree comes into bearing, the consequence is, that the kind is not that which it was supposed to be, but is a new sort, wholly unknown, or, from a faint resemblance to some old variety, it is set down as such. The error thus becomes in the first instance established, and continues to be perpetuated until its name is again lost, and then another is given to it. In this way has arisen a great many of the errors among our fruits, which has caused, and still causes, great disappointment to horticulturists.

To entirely eradicate this growing evil is one of our greatest objects, and it is with this view that we have in part commenced these notices: we shall continue them from time to time, and, we hope, with such aid as will ultimately establish a nomenclature, which shall be a sure guide both to gentlemen and amateurs of fruits in making their selections, and to commercial nurserymen in the sale of their trees. We would not here omit to mention that Mr. Manning's collection of fruits was made solely for his own gratification, and for the laudable purpose of correcting their synonymes; but the duplicates have so increased on his hands, receiving trees from so many sources, and his extensive correspondence has secured him so many superior sorts, that, at the request of many horticulturists, that he would dispose of some of his trees, he has concluded to do so; we would therefore advise those who are in want of fine varieties true to their names to call upon Mr. Manning, where they may be sure of receiving such as they may order. With these remarks we here present the list of pears by Mr. Manning.

1. *Amiré Joannet* Duhamel. Synonyme: *Early Sugar* of Prince.—The first pear ripe. The tree has few branches, which are long: the young wood is dark red; fruit larger and better than the following.

2. *Petit Muscat* Duhamel, Coxe.—This is a great and constant bearer; one tree is sufficient for any collection: the tree grows to a large size; the fruit larger and better on those of middle age.

3. *Madeleine*. Synonyme: *Citron des Carmes*.—This is a fine early pear, and should be in every collection. It is a constant bearer: described and figured in the new edition of *Duhamel* and the *Pomological Magazine*. It appears to be a different fruit from that described by the same name in the old edition of Duhamel and Coxe. Lindley, I see, has the same opinion.

4. *Epargne* Duhamel. Synonyme: *Jargonelle* of England and America.—Larger and better on quince stocks, trained as a

**dwarf.** The wood of this tree bears strong marks of decay: it is a great bearer, and a very profitable market fruit. Perhaps no pear shows the difference of soil and cultivation more than this. Coxe describes it under the name of the *Epargne* and *Jargonelle*, probably owing to seeing it under different degrees of cultivation, and in different soils. Who would suppose that the figures in Coxe and in the *Pomological Magazine* referred to the same fruit? Yet the writer of this has raised them in the same season, under all those variations of size and goodness, and was at first disposed to consider them different, till a critical examination of the wood, growth, leaves and fruit has led to a different result.

5. *Julienne* Coxe, No. 15.—This is a fine pear, a great and constant bearer. The trees are healthy and growth vigorous: the branches are long and bending, with large swellings at the end of the shoots. It is well adapted to the market, ripening in the house gradually. I quote Coxe only, not having found this pear described by any European author. It is no doubt of French origin. August.

6. *Rousselet Hatif* of Coxe.—This pear is remarkably fine, and high flavored: it should be eaten ripe from the tree, which, in some measure, renders it unfit for the market. It is a good bearer, producing fruit every year, and the tree presents an open and spreading top, and vigorous and healthy growth. I think this cannot be the pear described by Duhamel under the same name, it never having with me assumed the figure delineated in his work. July.

7. *Williams's Bon Chrétien*. Synonyme: *Bartlett* of Boston.—Large, handsome and good, a great and constant bearer, of vigorous and healthy growth, and one of the best either for the market or private garden: ripens gradually, in August and September.

8. *Summer Franc Réal* Pomological Magazine.—A first rate fruit. It is best ripened on the tree, which is healthy and a good bearer every year. This pear must be of comparatively recent origin, as it is not described in the old edition of Duhamel. It ripens at the same time as the *Bartlett*, to which it is equal in every respect except its size.

9. *Imperatrice d'été*.—I received this pear from the Messrs. Young, of Epsom, England. It is large, handsome, resembling the *Bartlett*, but in flavor is only a second rate fruit. The tree bears very young, and abundantly. I have not yet ascertained the correctness of the name: ripens in August and September.

10. *Fine Gold of Summer* Duhamel, Coxe, No. 8.—This pear is small, but it is of fine flavor, and an abundant bearer. It is good eaten ripe from the tree: it is probably an old variety,

and in my garden disposed to crack, like many of the old pears. Ripe in August.

11. *Summer Rose* Pom. Mag.—This pear should remain on the tree until ripe. The tree is large and spreading, resembling an apple tree, and attains a large size before bearing fruit. It cannot be called a first rate fruit, many pears, ripening at the same time, being superior to it. Coxe no doubt describes this pear erroneously, as the Red Bergamot: the *Bergamotte Rouge* of Duhamel is a very different fruit. Ripe in August and September.

12. *Skinless* Coxe, No. 7.—This pear is very sweet and sugary, and, on this account, subject to be injured by birds and insects. It does not appear to be a great bearer, and the growth of the tree is not vigorous. The pear cultivated near Boston, as the long-stalked Blanquette, appears to be the same as this. Ripens in September.

13. *Summer Thorn* Duhamel.—This is a good pear, and of a very peculiar flavor: it bears abundantly, but does not equal many other varieties which ripen at the same time. September.

14. *Beauty of Summer* Coxe, No. 6.—This pear is small but very handsome: the tree is of vigorous growth, attains to a large size before it bears, and is then very productive. It is rather dry, and of medium quality only. Ripe in July.

15. *Lowry's Bergamot*. Synonyme: *Prince's Sugar Pear*.—This is said to be very fine on Long Island; but with us is only a second rate fruit. It is, I believe, a native, a great bearer, ripening in September.

16. *Bloodgood*. Synonyme: *Early Beurré* of Princes' Cat.—A large, handsome and good pear; a native of New York: the tree is of vigorous growth, the young wood very short jointed. I received this tree from James Bloodgood & Co. It bears very young and abundantly, and is well deserving of cultivation. August.

17. *Ah, Mon Dieu*. Synonyme: *Poir d'Amour*.—Very handsome and productive; the tree of vigorous and spreading growth. It is not a first rate fruit. Ripens in September.

18. *Andrews*. Synonyme: *Amory*, or *Gibson*.—A well known and good fruit, ripening in September. It is no doubt a native, and well deserving cultivation: it bears young, and is productive.

19. *Bergamotte Rouge* Duhamel, but not of Coxe.—This is a flat pear, of medium quality only. It is a great and early bearer, but rather dry, and wants flavor.

20. *Summer Bergamot*.—This pear, cultivated in Essex County, and near Boston, by the above name, differs from that described by Coxe or the European authors. Its origin is uncertain: it is productive, but dry and mealy. September.



21. *Petit Blanquette*.—This pear grows in clusters: it is nearly white, bears abundantly, but, among so many fine pears, ripening at the same season, does not appear to deserve cultivation. August.

22. *Rushmore's Bon Chrétien*. Synonyme: *Harrison's Large Fall of Coxe*, No. 52.—This is a great bearer. It is an inferior table fruit, and good as a baking pear, but ripens at a time when they are not desirable. September and October.

23. *Cushing*.—This is a native pear, and very good: the trees bear abundantly, and for a private garden or the market is well deserving of cultivation. September and October.

24. *Harvard*.—This is also of native origin: the tree is of very upright and vigorous growth: it does not bear until it attains a large size, but is then very fruitful: sometimes apt to rot at the core; otherwise a very desirable fruit: ripening in September.\*

25. *Heathcot*.—Another of our fine native pears, ripening in October, and well deserving of cultivation.

26. *Johonnot*.—This pear originated in the garden of the late G. S. Jhonnot, Esq., in Warren Street, Salem. It is not handsome, but of fine flavor, and a first rate fruit, ripening in September.

27. *Naumkeag*.—This pear also was raised by Mr. Jhonnot. I think it will prove good, but have raised but one pear this season. It ripens in October, and is very productive.

28. *Newtown Virgalieu*.—Said to be a native of Long Island: a great bearer; rather indifferent as a table fruit, but excellent for baking, in November and December.

29. *Pope's Scarlet Major*.—The origin of this pear is unknown to me. It bears well, is handsome, but very indifferent. Ripens in October.

30. *Pope's Quaker*.—Origin also unknown. It is very productive, of a yellow russet color, beautiful in appearance; and, although not high flavored, is well deserving of cultivation as a market fruit. Ripens in October.

31. *Autumn Superb* Buel & Wilson's *Cat*.—This is a pear imported from France, (the true name lost.) It is an early and good bearer, and, I should judge, from the experience of two seasons, a handsome and fine fruit. Ripe in October. The trees are not vigorous growers.

32. *Autumn Bounty*.—A native American baking pear, a great bearer, ripe in September.

33. *Belle Lucrative*.—This tree I received from Messrs. Young, of Epsom, England. The trees do not produce young, but, when large, are great bearers. It is a first rate fruit, very sweet, juicy and delicious. September.

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\* The original stump of this variety, which has been doubted by some as being a native, is still growing upon the borders of the towns of Cambridge and East Cambridge.—*Cond.*

34. *Belle et Bonne*.—This tree is generally cultivated as the *Belle of Brussels*, by which name I received it. The *Pomological Magazine* describes it as a first rate fruit, but the experience of one season only does not justify the opinion. It ripens in September, and, in a more favorable year, may prove itself entitled to the first class.

35. *Belmont*.—The pear I have cultivated under this name is of middling size, with a very long stem. It was of pretty good quality, but the *true Belmont* is described as a large baking pear. Mine, I suspect, is wrong. Ripe in October.

36. *Autumn Bergamot* of England and America.—This is figured in the *Pom. Mag.* It is different from the pear of the same name cultivated in France, and, no doubt, originated in England. It is a great bearer, but not a first rate fruit. Ripe in October.

37. *Beurré Romain*.—The tree received from several nurseries by this name cannot be correct; it has borne small and worthless fruit. The true *beurré Romain* should be a good fruit.

38. *Beurré Knox*.—This is a good bearer, ripe in October, but, from the experience of several seasons, I should not judge it to be a first rate fruit.

39. *Bezi de Montigny*.—This is an old pear, resembling the *St. Michael* in form, and of a light yellow color. It is a great bearer, but only a second rate fruit. Ripe in September and October.

40. *Buffum*.—A native fruit from Rhode Island. The trees grow vigorous and upright, like the *Harvard*: it bears most abundantly, is very handsome, but only a second rate table fruit. Ripe in September.

41. *Doyenné Gris*.—This is one of the old first rate fruits: it is liable to crack, like most of the old pears. I have raised them on dwarfs for several years, and always good: this year they were very handsome and good from a standard tree. Ripe in October and November.

42. *Doyenné Blanc*. Synonyme: *St. Michael* of our gardens.—For twelve years they have been worthless. In some protected gardens they have been a little better than in former years. October.

43. *Sucr  Vert *, or *Green Sugar*.—The growth of this tree is vigorous: it is a great and constant bearer. It is a good fruit, but cannot be called first rate, when compared with other fruits of the same season. Ripe in October and November.

44. *Sylva ge Vert *.—This pear resembles the *beurr  Diel*: the trees also have a similar appearance: it is a great bearer, a first rate fruit, ripening in November and December, and deserves to be extensively cultivated.

45. *Henry IV.*—This is a great and early bearer, and of rapid growth: it has a peculiar taste, a good, but, from this year's experience, not a first rate fruit. September and October.

46. *Jalousie Duhamel.*—This is a handsome and pretty good pear, of a yellow russet color. It does not at present appear to be a good bearer. October.

47. *Verte Longue*, or *Long Green*. Synonyme: *Mouth-water*.—This is an old pear, but shows no signs of decay. My trees produce abundantly, every year, fine and handsome pears: their cultivation deserves to be extended. Ripe in September and October.

48. *Marie Louise.*—My trees produced fruit for the first time this year: it resembles the figure in the *Pom. Mag.*: it is decidedly a first rate fruit: ripening in November.

49. *Napoleon.*—This also is a first rate fruit, and very productive. The pears do not attain to the size of the figure in the *Pom. Mag.*, which may be from their great bearing. It cannot be too extensively cultivated. Ripens in October and November.

50. *English Red Cheek.*—This is no doubt a French pear with a new name. It is a great bearer, large and handsome, but hardly second rate. Ripe in August and September.

51. *Rousselet de Rheims.*—This is a small, high flavored pear, ripening in September, with the *Seckel*: it is good only eaten ripe from the tree, which renders it less valuable than it otherwise would be.

52. *Seckel.*—Well known as a first rate fruit, ripening in September. In rich land and a good season, the flavor is equal or superior to any other pear known.

53. *Verte Longue panachée*, or *Striped Long Green Duhamel*, *Coxe.*—This is striped green and yellow: it is more curious than good, having a sweet, insipid taste. Ripe in September and October.

54. *Urbaniste.*—The trees are not of vigorous growth, do not produce young, but, when they have attained the proper size, are great bearers. It is a first rate fruit, ripe in October, and cannot be too extensively cultivated.

In our next, this list will be continued, and among the sorts noticed will be a larger number of the more rare varieties. Mr. Manning has enumerated all the above, not that he considers all of them as worth cultivating, but that persons setting out trees can select such as suit their taste; in regard to which, it is well known, there is a great difference of opinion: some prefer a highly perfumed pear, while others have a great dislike to such: some prefer those in which sweetness is most abundant, while others choose those which are more acid. Again, some of the very best kinds are shy bearers, and might be thus rejected,

and one taken, which, though not, perhaps, more than a second rate fruit, produces abundant crops. This would naturally be the case in small gardens, where there is but a limited space to devote to fruit trees. The cultivator is thus left to select such varieties as suit his own taste, and reject those that do not: while those who have many sorts already existing in their gardens can compare them with the list; and if they should prove synonymous with those enumerated, they can discard those unworthy of cultivation, and choose such as are desirable. We have some observations to make ourselves, on several kinds, but we defer them until we have heard what Mr. Manning has to say respecting the same varieties.

In regard to other fruits, we have the pleasure of stating that lists of such as have been proved by Mr. Manning will soon appear, from which we have no doubt such information will be afforded as will be of great utility to our readers.

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**ART. III. *Notices of Culinary Vegetables, new or recently introduced, worthy of General Cultivation in private gardens or for the market.* By the CONDUCTOR.**

UNDER this head we shall occasionally notice such vegetables as we or our friends have proved to be worthy of cultivation, and also give some information respecting such as may be reported to possess extraordinary merits. Much confusion exists among seedsmen, in regard to many sorts of vegetables, and frequently one kind is sold under several names. This is particularly the case with peas, cucumbers, lettuces and cabbages; and the consequence is, a great waste of time and labor to the cultivator. The least variation in the growth of a vegetable, which often arises from soil or climate, has been considered a sufficient reason to give it a new name; under which it may reach the ears of the seedsman, who, zealous to procure every thing that is likely to prove valuable, engages a quantity of the seed for the trade: he is frequently imposed upon by the raiser, and, though the blame in cases of failure or disappointment is often laid to the seedsman, it in most instances belongs to the grower; and this liability to be imposed upon is very great, where the seedsman is not thoroughly acquainted with his profession. These

errors, once begun, are perpetuated, and thus arise the great number of names on our catalogues of vegetables.

It is too apparent to any one, who has looked with any interest upon the progress which horticulture has made in this country within a few years, that the cultivation of culinary vegetables has been much neglected: and while great attention has been directed to the introduction of fine fruits, which are mere luxuries, these, which minister to the necessities and comforts of mankind, have been thought of too little importance to scarcely attract the notice of our societies, instituted certainly for one purpose of directing attention to improvement in the growth of the most superior varieties. We ourselves deem it as one of the most important departments of horticulture, and one in which there is a considerable want of knowledge to grow many vegetables to perfection. A great prejudice also exists against the introduction of new kinds: the idea is so generally prevalent that a cabbage is a cabbage, and a potato a potato, that all attempts to impress upon gardeners or marketers, and, more particularly, farmers, the value of any new variety, are made in vain. But we are happy to say that this prejudice is beginning to give way; and we hope that our articles on this subject may be the means of hastening it in such a degree, that the recommendation of a new variety will not be viewed with the contempt which has heretofore attended all such supposed innovations. We are aware that the disappointment which has succeeded the trial of reputed new varieties has tended to keep alive this prejudice. We shall not, however, commend any but what are deserving of cultivation, and which are equal to, or better in some respects than, those varieties previously well known.

We have not the opportunity at this time to notice many kinds, but we commence this article with the following:—

**PEAS.**—The article at p. 427 of Volume II, should be attentively read by every cultivator. The synonymes there are carefully arranged, and it only remains for us to notice some which are little known, and others which are said to be very excellent.

**D'Auvergne Pea.**—This is a French pea, and said to be very excellent. Its qualities are noted in Vol. II, p. 428.

**Groom's Superb Dwarf Blue Pea.**—We have raised this variety ourselves: it is a very prolific pea, and the flavor is excellent. Every way worthy of extensive cultivation.

**Nonsuch Pea.**—Under this name we received a variety two years since from England. It does not agree with the description of any of the varieties as described by Mr. Gordon, in his paper above alluded to; it belongs, however, we have no doubt, to the third group. It is very prolific, and scarcely surpassed in flavor by any pea. It comes into use about the same time as the dwarf marrow. Deserving of extensive cultivation.

**The Early Warwick Pea.**—This is stated to be a great ac-

quisition. We received a few seeds a year since, and put them into the hands of a grower, to raise for us; but owing to some circumstances none of the crop ever came into our possession. It is stated to be equally adapted to field or garden culture; is very hardy, tolerably prolific, and of rapid growth, with a peculiarly high flavor: three crops, it is said, may be raised in one season, in England, and leave the ground open for wheat. We hope again to possess it, and in the mean time we commend it to cultivators.

*Earliest Dwarf Pea.*—This is the name under which a variety has been cultivated in this vicinity for four or five years. It is distinct from any other, and is the earliest of all that we have ever seen. It is the dwarfest, and at least four days earlier than the early frame. We do not know where it was originated, but it is certainly deserving of extensive cultivation.

Among the sugar peas, Vilmorin's sugar is said to be excellent: this group is not, however, much liked with us.

**BEANS.**—There does not appear to be much improvement in this vegetable: some new sorts have been introduced, but none which will surpass the Lima. As this is, however, a very late bearer, small crops are generally gathered, and, in some instances, few or none, as in the present season. To supply the place of this, or at least as an auxiliary, we would recommend the following:—

*Soissons Bean.*—This is a running bean, of French origin, and worthy of general cultivation: it is nearly or quite as large as the Lima, more kidney-shaped, is at least three weeks earlier, and very excellent. We commend it to the particular notice of marketmen. We raised it this year, and it came into use when the Lima was just beginning to bloom.

*Valentine Bean.*—So called in Philadelphia, where, we believe, it was originated. It is a dwarf kind, not early, but, as a string bean, equal if not superior to the marrow.

*The Prolific Lima Bean.*—Something was said a year or two since of a new bean under the above name, which, it was stated, would rival the Lima in every respect. We have seen the bean ourselves, but have never heard anything respecting its qualities from those upon whom we could rely for correct information. We doubt much of its ranking as high as has been stated.

**POTATOES.**—We do not know that much information can be given in regard to them. Some new sorts have been grown, which we have occasionally incidentally noticed among others.

*The Forty-fold, or Taylor's Forty-fold*—this variety having been originated by Mr. Taylor, of Preston, England. It is a very great producer, from one pound of sets seventy pounds of full grown potatoes having been raised. They are of excellent flavor, and very mealy. We recommend it for general cultiva-

tion, and we have no doubt it will ere long take the place of inferior sorts so commonly grown.

*Nonpareil*.—This is a very early potato, of excellent quality, and tolerably prolific, attaining a good size. For forcing, or for an early crop, it is the best as well as the earliest variety we have ever tried.

*St. Helena*.—This is a variety which has lately been introduced and cultivated to some extent. It yields a good crop, and its qualities as an eating potato are only second to any that we are acquainted with. They are of fair size and handsome shape, and are mealy and sweeter than most others. In cultivation they appear to acquire the most flavor in a strong loamy soil, inclining to clay: but they produce well in a light soil. We would recommend it to the notice of the cultivator, and particularly to our farmers, as commanding a much more ready sale than those mixtures of all sorts, generally grown, and as generally unfit for all culinary purposes.

Our next notice will contain an account of some new lettuces and cabbages.

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ART. IV. *On the Cultivation and Management of the Raspberry.* By J. W. RUSSELL, Superintendent at Mount Auburn.

RASPBERRIES are a very useful fruit for the table, for preserving, for making jams, &c., and continue a long time in bearing, and are raised from suckers and layers. They should be planted in a piece of ground by themselves, at the distance of about six feet from row to row, and four feet apart in the rows, either in angles—with three plants, or singly; but as this is altogether a matter of taste in the planting, the operator may please himself, for either of the methods will do equally well; all that is necessary is, not to neglect giving them the distances proposed. The ground should be first well dug and manured, before the raspberries are planted: in selecting them, always choose the strongest and finest growths that spring up from the sides of the old plants, where they have been standing for some years; or encourage the strongest plants that come out betwixt the rows after digging, which should be done annually. In digging the ground the roots are frequently cut with the spade,

## 22 On the Cultivation and Management of the Raspberry.

which will occasion a great number of small plants to come up; of these select the strongest and finest, and hoe up all superfluous ones: some cultivators prefer laying down some of the strongest outside growths in the month of April, as by the following autumn they will make fine roots, and may be planted out in the plat of ground where they are intended to remain. These will not be so liable to throw up *suckers* as those which are produced from *suckers*.

In the planting out of fresh plats of raspberries, preference should be given to damp or moist weather, as the roots are very tender, and liable to be hurt when exposed to a dry air. If, however, they are planted in dry weather, take care to moisten the roots with water, and cover them with old bast mats, or leaves, while they remain out of ground. In planting, open a trench with the spade along the line where the suckers or layers are to be set out; cut off a portion of the small fibrous roots, preserving all the stronger ones; put them into the trench, and cover them with some earth; then have them well watered, and throw the remainder of the earth over them, letting them remain till you have finished planting the whole ground. Then, where you first began to plant, go over and tread the ground with your foot along each of the trenches, and in the same direction as you planted, and level all the ground smooth and even—taking off any stones or rubbish that may be left on the surface. In dry weather the plants should be watered two or three times a week, till they have taken root. It will be necessary to put stakes to the strong growing sorts, to tie them up to, which will prevent their being broken by the wind, or beaten down by the rain.

In November, or before the ground freezes up, the old bearing wood should be cut out, being of no more use, as the fruit is always produced from the wood of the preceding year; therefore, take out all the wood that bore fruit this year, and select four or five of the most vigorous and strong shoots of this year's growth, to bear fruit the ensuing season: shorten the tops of each, according to their strength; and the most sure way of preserving them through the winter is to lay them down in straight rows, covering them over about six or eight inches deep with the soil. As a great many of the strongest canes are frequently broken in laying them down, I would recommend the placing of four or five spadefuls of soil close to the stool, so that the shoots can be easily brought over it in a rounding position; this will be found to answer the purpose so well, that seldom if ever any breaking will be made in laying them down.

In the spring they must be uncovered as soon as the frost leaves the ground, and immediately tied up to the *stakes*—remembering that delays are dangerous.

An old plat of raspberries will continue in bearing six or seven



years, by which time a fresh plantation should be made to succeed them. The young plants will bear some fruit the first year, and come into full bearing the second after planting. If they are suffered to remain longer without renewing than the time specified, they will degenerate, and bear *small fruit*: frequent hoeing and cleaning between the rows is a very necessary process, and should not be neglected. The following are the sorts best worth cultivating:—

Nottingham Scarlet Smooth Cane,	Large Red,
White Antwerp,	Barnet,
Red Antwerp,	Early White,
Smooth Cane Double-bearing,	Large White, &c. &c.

Messrs. Thomas and William Mason, Charlestown Vineyard, have a collection of fine sorts for sale.

I am yours, &c.

J. W. RUSSELL,

*Mount Auburn, Cambridge, Dec. 12th, 1836.*

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**ART. IV.** *Description of a New Method of heating Pits for forcing, or Pits in stoves, for tropical plants, with Hot Water; first erected in the garden of Mr. S. Sweetser, Cambridgeport.*  
By the CONDUCTOR.

A GREAT variety of methods have been devised, in England, to apply heat to pits for forcing, and for other purposes connected with gardening. Brick flues, steam, and hot water, have each been tried, and each at the time of their invention been approved of: subsequent improvements on each have been made, but the mode now most generally adopted is either by steam or hot water; brick flues having been dispensed with, as giving out an uneven and too drying a heat. Steam pits are formed by running perforated pipes through a quantity of loose stones, over which is the soil, for setting in the plants, or for plunging in pots; the stones become heated and hold their warmth, and give it out gradually and very evenly to the soil. Hot air-chambers, warmed by steam pipes running through them, have also been adopted. But the former method, in conjunction with hot water, is now thought to be the best. It was invented and first applied to

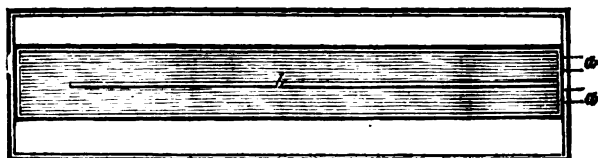
the heating of pits by Mr. Hay, of Edinburgh, and is fully detailed in the *Gardener's Magazine*, Vol. VIII. The improvement on his system consists in substituting, for the loose stones, a cistern of water; through this the steam-pipes are conducted, near the bottom: fires are applied twice a day, and the large quantity of water gives out a very equal warmth: this improvement was made by Mr. Stothert, a civil engineer.

In the climate of England, so mild compared with ours, heating stoves, green-houses, or pits, is not a subject of so much importance as with us. Here, where strong fires are almost constantly required for the space of six or seven months, economy in the mode of heating is the first consideration. And that which shall be the best adapted to advance this object, and, at the same time, combine the most advantages, will be sought after in the construction of various gardening structures. Steam will therefore be found to be objectionable, as it requires a greater degree of heat, and consequently more fuel, to generate it, than to circulate hot water. Steam also demands more attention in its management than hot water, and is here again objectionable on the score of expense, where labor is as high as in this country. By this mode there is also the double cost of a cistern and steam pipes, only the former of which there is any necessity for, as will be seen in the method we are about to describe.

In stoves, and pine pits, which latter, however, are here but little known, it has, till within late years, been usual to employ oak bark, (which has been used for tanning,) or leaves, and hence the common and oft repeated name, in English works, of bark beds, bark stoves, &c. Oak bark is not procurable here, and consequently leaves have been substituted: to the amateur American gardener who is a novice in horticulture, the term bark bed is scarcely understood, and we know of but few expressions which have so repeatedly puzzled the ideas of young beginners. As we have just stated, these have given way in many instances, though by no means in all, to the modes of heating mentioned above: in common forcing gardens, where neatness is not an object, they are still in use. But that hot water will finally take their place, there can be but little doubt.

In the following plan, (*figs. 1 and 2,*) hot water alone answers

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all the purposes of warming the soil. We have given the plan from that erected in Mr. Sweetser's garden; but the principle

on which it is constructed is all that we wish to point out, as it can be made of any dimensions, and work with equal facility. A cistern (*fig 1.*) is made for the purpose of holding water: this cistern is divided in the centre by a strip of board or plank, (*b*)

with the exception of an open space at one end, as seen in the plan: at the other end the hot water enters, though one of the pipes, (*a a*) which may be made of copper or iron, and circulating round the cistern by means of the open space just mentioned, returns to the boiler through the other. The water enters and leaves the cistern on a level, but the return pipe, just outside, drops down by means of an elbow, and the water returns

with the same facility as from a common reservoir. The depth of water is about five inches, as will be seen in the section, (*fig. 2.*)

Mr. Sweetser's pit measures about sixteen feet in length, and three in breadth. The cistern takes up but part of this, as seen in the plans, and is about twenty inches wide and six inches high. Across the pit, about four inches from the surface of the water in the cistern, joists or plank are laid, to support a covering of bricks and stones, on which the soil, consisting of decayed leaves and light mould, is placed, for plunging in the pots of plants.

When the fire is applied beneath the boiler, the water circulates freely, and that in the cistern soon becomes heated; the warm air rises through the bricks, which are laid without mortar, and stones, heating them in its course, and communicates with the soil: the evaporation is just sufficient to keep the soil in a moist state, highly conducive to the vigor and health of the plants. Fires are not required during the day, as the great body of water will retain sufficient warmth to keep the heat of the soil above from declining. The bricks and stones also retain their warmth for a great length of time after the fire is out.

This pit has been in operation several weeks, and continues to afford the greatest satisfaction. There is always a genial warmth in the soil, and the pipes communicating from the boiler to the cistern, together with the flue, keep the air of the house at as high a temperature as is required. This is an important thing in the construction of the pit; as the same pipes in all cases, no matter how large the dimensions of the water cistern, that warm the house, may be conducted into it: and, if required, can leave it, and still continue further round the house before they

return to the boiler. Several amateur and practical gardeners have seen it, and pronounce it the most complete apparatus for the purpose that has ever been invented. Mr. Wilder has already put one up like it in his stove.

It only remains for us to say that this improvement is the invention of Mr. P. B. Hovey, jr., and was erected from a plan drawn by him, at the request of Mr. Sweetser, who was desirous of adding a pit to his stove, for plants that require bottom heat. The success which has attended this system is such as to give us the utmost confidence in recommending it for all similar purposes, and more particularly for forcing cucumbers and other vegetables in the months of January and February, when it is all but impossible to work ordinary hot-beds. The first cost is not great, and the fuel which it consumes is very small; and in the latter case it would not cost half as much as the quantity of dung necessary for the formation of beds.

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#### ART. V. *Calls at Gardens and Nurseries.*

*Charlestown Vineyard, Messrs. Mason,—Dec. 14th.* Within the past year there have been many additions made to the forcing department here, and it now contains, for the purposes of growing grapes, peaches, and various vegetables, as lettuces, radishes, &c., upwards of four hundred feet of glass. An immense quantity of grapes will be produced here in the course of a year or two, as soon as the plants get well established. Mr. Mason, senior, is a very good grower of grapes, and we have no doubt that he will be able to make it a very profitable business. There is a great demand for forced grapes, and it would give us much pleasure to see them supplied by such men as the Messrs. Mason, who are very industrious in their profession, rather than from the gardens of amateurs and wealthy gentlemen, who should be above such petty dealing, which interferes with the business of the forcing gardener, and prevents him from procuring the ready sale for his various articles, which he otherwise would. This is carried to a considerable length by some gentlemen, who, were it generally known, we cannot but believe would be ashamed to be considered as competitors with the industrious and hard-working forcing gardener. The same practice in regard to flowers is pursued by too many who wish to be considered as amateurs, but who are, in fact, nurserymen under this assumed title. Until this practice, unknown in any other section of the Union, except Boston and its vicinity, is done away with, it will be in vain to expect to find nurserymen possessing good collections of plants. It is one of the most serious drawbacks upon the progress of floriculture; and if as much of it is done for the future as has been within a year or two past, we fear the business of the nurserymen will be so depressed as to render it scarcely worth pursuing. We throw out these

remarks with the hope that the ruinous effects of such a policy may be constantly impressed upon the minds of all those who have not reflected upon the subject.

In the green-house the plants look vigorous and healthy. The collection does not include many very rare plants, but abounds with such as are in demand and are constantly wanting, as geraniums, myrtles, oleanders, roses, &c. &c. The stock of these is very large. Of three or four of the more common kinds of cereuses, there is also a considerable number of plants. There are a few camellias, including some good sorts, and one very fine plant of the double white. We observed a great many acacias, which Mr. Mason raised from seeds, the past summer, which he received from the Massachusetts Horticultural Society, and which were some of the number presented by the Baron Von Ludwig. But very few plants were in flower, excepting some roses, salvias, heliotropes, &c: and, among these, *Acacia suaviolens*, with its delicate blossoms, was the most conspicuous: several double white camellias were expanded, and one or two other varieties. Quite a number of bouquets are cut here during the winter, and just at the present time the plants had been tolerably well clipped.

*Broomley Vale, Roxbury, Hon. John Lowell, — Dec. 19th.* We have not visited this place since August, 1835. The plants are in very good order, and the houses, which are altogether too small for such a valuable collection, are crammed to overflowing. We hope Mr. Lowell will be induced to erect a more commodious house for many of the finer specimens. Certainly the large and beautiful shaped orange and lemon trees here, the best by far in the vicinity of Boston, are deserving of a place by themselves; they show now to but little advantage; but Mr. Lowell cares less for display than many amateurs who possess inferior collections.

In the stove, we found the pine plants in bloom and in fruit. We were astonished when Mr. Lowell's gardener informed us that several fruit had been cut during the past year. The young fruit showing now will not be very large, as the pit in which the plants are growing has but little bottom heat, and at this late season they rarely swell up to a good size. This most excellent of all fruits is about to be raised in considerable quantity at Belmont Place, and, we hope, in greater number here. Among the plants were *Poinciana pulcherrima*, or flower of Barbadoes, which, when we were here last, was a little plant not more than two feet or so in height: it has now attained the size of a large shrub, and is four or five feet high. We hope it will be made to produce flowers another season. The branches of the coffee tree were bending down under the great weight of the berries: it is a most ornamental shrub. *Pancrätium speciosum* was throwing up what we took for a flower spike. The *Ficus elástica* and some other plants have had their tops cut off on account of reaching to the glass! Some of the finest specimens of *Cereus speciosissimus* are here that we have ever observed, and one plant covers several square feet of the back wall. A small plant of the *Pandanus spiralis* we noticed among the rest.

In the green-house the orange and lemon trees are almost breaking down with the quantity of fruit: we have no doubt but that some *bushels* might be gathered from ten or twelve plants. Among the rest is the *Citrus decumana*, with the same fruit upon it which it was bearing when exhibited at the Massachusetts Horticultural Society's exhibition at the Odeon, in September, 1835. *Ardisia acuminata* was in fine flower. A few camellias have expanded. *C. reticulata* was showing two buds, which will be in bloom in the course of a few weeks. A variety with a red flower, something in the way of *coccinea*, was in bloom; but we do not know that we have ever seen any thing just like it: there is no

great beauty about it, but we should be glad to know its origin. Several flowers of the double striped were expanded, but they looked so different from those that we have in bloom in our garden, that, were it not for the general familiar appearance of the plants, we should have called them some other kind: scarcely a spot of white was to be seen in some of the flowers, and the red was much paler than usual. There is here quite a collection of *ixias*, *tritonias*, *gladioluses*, &c., and a fine display may be anticipated in March and April.

*Seat of Col. T. H. Perkins, at Brookline,—Dec. 20th.* As usual, this place is in excellent order. In the graperies the pruning of the vines is just commenced: the wood is exceedingly large this year. The peacheries have not been pruned. In the small pit in the garden, where the grapes were cut this year, in April, Mr. Cowan has already begun to force the vines, and some of the buds are now bursting; he calculates now upon cutting fruit in March. The fires were not put in until the first of the month, and the forcing must have been pretty rapid to have advanced so far already. The grapery, heated on Perkins's system, which was forced in succession to this pit last winter, will be brought forward with the others the ensuing spring.

We found very few plants in bloom. Some camellias were just beginning to expand. *C. var. gloriösa* here, is the same as *C. var. glöria belgica* in our collection: like many others, it possesses but little beauty, and can scarcely be considered as worth growing. *Acacia longiflora*, several plants of, and *A. verticillata*, are full of buds, and will soon be lovely and conspicuous objects. *Sparmannia africana* is an ornamental green-house plant, which should be in every collection. *Enkianthus quinqueflora* will flower again in the spring: this plant is said to be easily propagated by cuttings; Mr. Cowan layed some of the shoots into pots last spring, but they showed no signs of rooting late in the fall, and the pots were removed: it is undoubtedly slow of propagation, which will prevent its being common for some time. Mr. Cowan's seedling camellias, which we have before mentioned, have made a vigorous growth, and some of them show flower-buds; from the appearance of the foliage some good sorts may be looked for. This fine tribe seeds freely, if the flowers are impregnated, and a great number of plants have already been raised in the vicinity of Boston. We may look forward to the time when as beautiful varieties will be produced here as have been raised by Mr. Floy and others in New York. We would advise those who have plants of the single red or warratah to be particular and impregnate the flowers with some of the finer kinds; the plants come forward slowly, but if a few seeds are sown every year, after those of the first sowing begin to flower, there will be a continual succession.

We took a walk round into the forcing ground, to see the foundation of two new forcing-houses which had just been laid. The length of the two will be upwards of one hundred feet: the back wall will not be very high, and the width of the houses will not be more than ten feet. Mr. Cowan has planned out what he thinks will be an important improvement, in the construction of these, for the forcing of vines. It has always been a great objection to hot-houses, stoves, &c., that, from the high temperature at which they are kept the year round, vines could not be cultivated in them; and, consequently, where these alone exist, a grapery has to be erected. In Mr. Cowan's plan, this objection is done away with. The front wall is built on arches: at the distance of a foot from the inner side of the wall another one is built; the vines are planted outside, as usual; and when it is desired to give them a period of repose or rest, they are laid down in the cavity between the two walls; a plank coping or shelf is laid over this cavity, which can be removed

at any time; and while it keeps all cold air out of the house, it answers the purpose of a shelf for placing on plants. In this manner the vines have the full action of the air upon them, and the necessity of cutting away the sill or sash, as is generally done to draw out the vines, when they have acquired any size, is entirely prevented. It only remains to be seen whether it will answer all the purposes when completed: if it does, we shall endeavor to lay before our readers a plan of the same.

*Seat of Dr. Howard.*—This appears to be a very good situation, though, from a mere passing visit, we had scarcely time to notice its natural or artificial beauties. It is situated on Perkins' Street, but a short distance from Jamaica Pond, which is plainly seen from the mansion. Of the style of the grounds, &c. we shall speak at another time; we now confine our remarks to the green-house which has been built the past summer. It is about fifty feet long, with a main house and two wings, and is heated with brick flues. The principal fault we have to find with it is its height, which is barely sufficient to clear the head in walking through the house. Vines are planted in the border, and, when these come into bearing, it will be found impossible to pass along without touching them: the situation is rather high, and the walk might be easily sunk a foot or more, which would remedy this. Dr. Howard has lately purchased this place, and the collection is entirely new. The gardener, Mr. Irish, appears to understand his profession very well, and the plants were in a healthy state; the geraniums were grown very strong. To occupy the spare room this winter, Mr. Irish was planting some lettuces in one of the wings, there being no stage for plants except in the centre apartment: these looked in a forward state. In the other wing some had already attained a large size. Among the plants in flower were a few camellias; three or four boxes of mignonette perfumed the house with their fragrance, and some roses and other common flowers were expanded. Another year there will be more that is interesting. We hope Dr. Howard, who is a gentleman of taste, and has sufficient means, will extend his collection and add to it all the finer plants. It is an evidence of the rapid progress which horticulture is making to see even as much, as has been already done, accomplished in one season. He already contemplates, we believe, the erection of a house, about eighty feet in length, for a grapery, peachery, &c.

*Seat of T. Lee, Esq.*—We had intended visiting this place the past summer, when the various plants which are the principal attraction here were in bloom. Mr. Lee is already known to our readers as a great admirer of hardy plants, and as having made great exertions to naturalize many of the kinds which have generally been called tender. With what success his efforts, which are continued with much zeal, will be crowned, remains to be seen. Since we were here, in 1835, a small green-house has been added; Mr. Lee, however, does not appear to be partial to green-house collections, as he has added scarcely any plants to it. He stated to us, some time since, that during the winter season, when residing in the city, a green-house would not afford him much pleasure; which is, perhaps, one reason of his not giving more attention to getting up a collection: the present house was built only for the purpose of protecting a few plants. We hope, however, that Mr. Lee will alter his mind, and be induced to erect a range of houses which will compare with that at Belmont Place; or, if not as extensive as that, such an one as Mr. Wilder's at Hawthorn Grove. We admire the taste which directs one to plant hardy trees and shrubs, which adds so much to the embellishments of garden scenery; but we would not exclude a love for green-house plants, which, during more than one half of the year, present to our eyes a mass of foliage and flowers,

and at a season, too, when our climate denies us any thing in the shape of vegetation. We would encourage a taste for green-house plants, but at the same time we would not lessen the desire of possessing hardy trees and shrubs.

But to return to our subject: in the green-house we noticed a few remaining flowers of the yellow Indian chrysanthemum. This is set down in a paper in the *Transactions of the London Horticultural Society* as not worth cultivating. We have given it up ourselves—still we cannot say it does not possess much beauty; but the late period of its flowering will prevent it from being generally grown. The principal plants were tender herbaceous ones, intermixed with stocks and a few annuals, as the *Malòpe trifida* var. *grandiflora*, *Málva moschàta*, &c., which were in flower. The mode of heating is not very good; and, were the plants very valuable, some danger might be apprehended of injuring them. A common cylinder stove is placed in a frame of brick-work, open on the front, the smoke passing off through a flue at the back; the heat supplied is very unsteady, sometimes hot and again cooler. As we have just stated, Mr. Lee must have a well-constructed house, heated with hot water pipes, and a good collection of plants to stock it. Many fine species and varieties for ornamenting the grounds in the summer season may be brought forward here, and such half hardy shrubs as some of the rhododendrons, azaleas, &c., with protection, would display their flowers placed in clumps upon the lawn in the months of May and June.

At Mr. Wilder's, *Hawthorn Grove*, the new stove, mentioned in our late visit to this place, is now about completed. A new mode of applying bottom heat, described in another page, has been put in operation for the pit. In the green-house several camellias are in full bloom, and some varieties that have never flowered here will be expanded soon. Some of the fine amaryllises are beginning to throw up their flower spikes.

J. D. W. Williams, Esq., *Roxbury*, is about erecting a fine range of houses. When completed we hope to have the pleasure of giving our readers some account of it. He is a gentleman of ample means, and, we doubt not, will spare no pains to make it one of the handsomest in the vicinity.

A *Span-roofed Green-house* has been added to the garden of Mr. Leathe, *Cambridgeport*, the first of the kind, we think, in the vicinity of Boston. It has a light and airy appearance, and for some purposes promises advantages over the common ones. It is upwards of thirty feet long.

*Mount Washington House, South Boston*.—This large, commodious, and elegantly furnished house, already known to the public as one of the best conducted in Boston, has annexed to it a fine garden, both for the recreation of the boarders, and for the purpose of supplying the tables with all the luxuries the garden affords. A fine range of forcing-houses has just been completed. The whole is under the management of Mr. McCullough, who, we have no doubt, will be able to furnish every thing the proprietors of the place can desire.

In Boston, Mr. Winchester has had a fine-green-house erected in his garden in Franklin Street. We have not seen it, but understand it is a very beautiful and well proportioned structure.

*Brooklyn, New York, Residence of — Perry, Esq., Henry Street*. At a recent hasty visit to this city we were much gratified with the improvements in matters of taste connected with horticulture which came under our notice here. Indeed, in the erection of handsome structures for the growth of plants, the inhabitants are quite in advance of any thing in a similar way on the opposite side of the river—New



York. Mr. Perry's residence is situated near the South Ferry. The house is a handsome building, in the Grecian style, with Ionic porticoes and two wings, one of which, the *conservatory*, is certainly one of the most complete and elegant structures of the kind we have yet seen. It is probably about fifty feet in length, with a span-roof, glazed on all sides, excepting, of course, where connected with the main body of the house, with one of the parlors of which it communicates, through a glass door. In the interior there is a border around three sides of the conservatory, and a large oblong bed in the middle, filled with the choicest plants. Between this bed and the border, the walk, paved with marble, is conducted round the conservatory: the building is heated by hot water circulating in cast-iron pipes. Among the choice specimens growing in the central bed, we observed very fine plants of *Urania speciosa*, *Ficus macrophylla*, and *Rhododendron Russellianum*, the latter full of flower-buds. Very large orange and citron trees, a large fruiting specimen of the rose apple, *Jambôsa vulgaris*, and another of the double white camellia, all of which were more than eight feet high, occupying the centre of this bed, and attracted our admiration. We noticed a number of fine camellias, of which a few of the earlier sorts were then\* (Nov. 30,) coming into bloom. Several acacias, decorated also with their pretty yellow blossoms, and a number of fine chrysanthemums, full of flowers, gave a gay appearance to the apartment. The exterior of the conservatory exhibits a row of pilasters supporting the roof, in the space between which, the windows, constructed and hung like double doors, open outwards for ventilation. The whole structure is one of the most finished models for those who are erecting similar edifices, that we can point out, and makes a very handsome wing to a villa in the Grecian style, now so prevalent in this country. The advantages of thus connecting the green-house with the living-rooms of the house, in a private mansion, are so obvious as to need nothing additional on the subject from us. By the opening of a single door, the ladies of the family can refresh themselves, at any time, with the beauty and fragrance of the flowers, and enjoy the pleasant recreation of a half hour's delightful occupation among the plants, in the very depths of winter. This seems to have been too much neglected among us generally, the green-house being, most frequently, a detached building not accessible to the family, in those months when most enjoyed, without braving the cold air of winter.

Mr. Perry has very considerable ground around his residence, which we were glad to see he is laying out in the most beautiful manner. A large basin of water with a handsome jet or fountain will be a conspicuous ornament, and, judging from present appearances, the whole will be a suburban garden of the first order.

*Residence of N. I. Becar, Esq.*—There is a handsome conservatory erecting here, in the same street, and nearly in the same style as Mr. Perry's, but detached from the house. Mr. Becar has just commenced collecting exotics; and as his conservatory was not quite finished, his plants were temporarily crowded into a green-house adjoining; among them we observed some noble orange trees, passifloras and Cape plants. The hot-water apparatus putting up here is of the same construction as that we saw in Mr. Perry's conservatory, and is the work, we believe, of Mr. Anderson, engineer, Brooklyn. It appears to heat the house very perfectly, and is certainly neat in its appearance; but its first cost is probably twice as great as the apparatus with copper boiler and tubes, so generally used in Boston, and we are strongly inclined to doubt if its durability will be found greater. The furnaces in both cases are of course constructed for burning coal under the boilers. Mr. Becar appears to be quite an amateur of plants, and has a choice collection al-

ready brought together to ornament his conservatory. We passed several other neat structures for plants, attached to the town residences in Brooklyn, and were much pleased with the architectural taste shown in their construction.

*New York.* Mr. Thorburn, connected with his large seed store, in John Street, has a rather unique appendage, viz. a handsome saloon, fitted up as a picture gallery, where one may be entertained with some excellent specimens of the art. There is also an aviary, for canary and other birds, where we saw an immense number of these feathered songsters, whose sprightly notes of melody quite filled the building.

At Mr. Thomas Hogg's establishment, near the House of Refuge, we called for a moment to look through his well filled green-houses, and especially to examine the singular hot water apparatus already described in this Magazine, vol. II, p. 248. It is now in steady operation here, and we were equally delighted with its extreme simplicity, the small space occupied by the furnace and boiler, and the evident economy in point of fuel. The water circulates in the most free and perfect manner, which is more than we can say respecting all the different apparatuses we have seen in this neighborhood. The truth, as Mr. Hogg remarked, is, that in the level system of circulation, care should always be taken that the tube leaving the boiler shall ascend a trifle to the open reservoir, and the return pipe descend towards the boiler, entering of course at the bottom. This effectually prevents the accumulation of air in the pipe, and, consequently, the gurgling sound sometimes heard in an apparatus not properly laid.

On looking through the houses, we saw a number of fine seedling geraniums, raised from the rarest varieties the past season, which, from their handsome foliage and thrifty appearance, promise to be valuable sorts. Mr. Hogg is celebrated for his superb collection of this tribe of plants, comprising all the most celebrated European kinds, and the bloom here every spring is quite splendid. We saw also, with pleasure, a number of young plants of the rarer Cape heaths, and a great many pots of seedlings of many Botany Bay plants. A very handsome *lantana* (*L. Sellowii*,) has been sometime in bloom here, of a fine purple, which we have not seen before in this country.

Dr. H. S. Moat is, we understand, erecting a very splendid mansion in the Gothic style, in Westchester Country, a few miles from this city, with a very extensive and complete range of hot-houses, stoves, and green-houses. The whole is to be heated by hot water, and constructed after the most approved plans, and the collection of plants, when completed, will probably be one of the first in the Union. Dr. Moat is, we believe, a gentleman of unlimited means and excellent taste, and we anticipate from him something very creditable in the way of horticultural improvement.—A. J. D.

## MISCELLANEOUS INTELLIGENCE.

### ART. I. General Notices.

*Perkins's System of heating by Hot Water.*—This system of heating is now much adopted in England in green-houses, hot-houses, &c., and

also for private dwellings, churches, ware-houses, &c. The expense of the erection is cheaper than that of copper pipes and reservoirs, and the small space it occupies renders it exceedingly useful where elegance and lightness of structure is considered. We hope it will be more adopted here, where we are confident it will be found much better than the method now in general use. In one of the graperies of Col. Perkins, at Brookline, it has been in operation some time, but we believe at no other place in this country. It is particularly applicable to early forcing-houses, and we have no doubt, could the apparatus be procured here, that it would soon take the place of the present system.

—*Cond.*

*Cause of Mildew.*—It has generally been supposed that mildew was caused by a damp atmosphere, owing to dull cloudy weather, or to long and continued rains. We have, however, long believed to the contrary; indeed, we have proved it to be caused by the reverse of this; and we are glad to perceive that we are supported in our opinion by Mr. Towers, the talented author of the *Domestic Gardener's Manual*. He states what we have always maintained, that it is owing to a "droughty state of the soil, high solar heat during the day," accompanied with cold heavy dews at night: and that the only preventive is, a plentiful supply of water both to the roots and foliage of plants affected. We several years since tried an experiment upon some gooseberry bushes, and ascertained the cause and also the same preventive: copious supplies of pure water stopped its increase; while on those which were not watered it continued to spread with great rapidity. At a future time we shall extend our remarks on the subject.—*Id.*

*New Method of sowing Grain, practised in the south of Europe.*—During four years past, S. Bocquet of Dammontin, whose husbandry is too limited to permit a large rotation of crops, has sown his winter wheat from the 15th of June to the middle of July. In sowing he makes a mixture of one half wheat and one half barley. The earliest of barley is of course preferred, as coming soonest to maturity. By the end of September or the middle of October, the barley being ripe, and the wheat already large, he cuts the whole within two inches of the ground—obtains an abundant crop of fodder and a half crop of barley. In the mean time the wheat is by no means injured, grows vigorously, and attains a large size the next season. The crop of wheat is very abundant, the heads of large size and well filled. (*Extracted from the Reportons di Agricultura, 1835.*)—*A. J. D.*

## ART. II. Foreign Notices.

### ENGLAND.

*Growing Plants in Glass Cases.*—At a late meeting of the British Scientific Association, a premium of the value of £25 was awarded to Professor Henslow for experiments and observations on the growth of plants excluded from the air, according to the method of Mr. Ward, an account of which is given in our I, p. 24. The discovery of this method is likely to prove of great importance in floriculture: plants have already been sent from England to the East Indies, and arrived there in good order, which have repeatedly been shipped in the ordinary modes, and have as repeatedly died on the passage. Might not many plants be added to our collections, which it has been found impossible to import in the usual way, by having them planted in glass cases? We cer-

tainly hope that some of our enterprising nurserymen in New York or Boston will attempt it. In our opinion carnations, pinks, &c. could be received without the loss of a plant.—*Cond.*

### FRANCE.

*Floral Commerce of Paris.*—In a paper read before the Horticultural Society of Paris by the president, on the 2d of March last, a lengthy account is given of the floral decorations made use of during the winter months, at the soirées and balls of that metropolis, and a detailed estimate made of the quantity of cut flowers sold in the shape of bouquets, flower-baskets, *jardinières*, &c. during eight days of the month of January, between the 23d and 30th of that month. From this account it appears that no inconsiderable trade is carried on by hiring out handsome plants, in boxes and pots, which are in general use for the decoration of the peristyles, vestibules and stairways of the houses. The vases or pots of plants being hired for a single night, not unfrequently serve to embellish, in succession, a dozen or twenty different mansions in the course of a month. The extent to which this is carried in some instances may be estimated from the fact, that more than 1500 francs were paid for the plants used at a single entertainment, given by the Baron Rothschild, in February last. The effect of these decorations, converting the passages and ante-rooms into a garden of verdure, is described as being quite magical. Immense quantities of camellias are used for bouquets, and bouquets composed of the common fragrant violet, with a bud or two of the Bengal rose, are sold to the amount of 1000 francs, daily, during the winter months. The other flowers principally used are hyacinths, primroses, cyclamens, lauristinus, orange and citron, daphnes, heaths, pittosporums, strelitzias, &c. The following is an abstract of the estimate given of the amount produced, by the sale or hire of flowers and plants, during the eight days of January:—

1st. Hire of boxes, pots, and vases of plants, shrubs, &c. transported from one ball to another . . . . .	10,000 fr.
2d. Flower-baskets, wreaths and <i>jardinières</i> , for the soirées . . . . .	6,000
3d. Single cut flowers of camellias, (250 dozen, at 10 to 24 fr. per dozen) . . . . .	3,600
4th. <i>Bouquets de tête</i> , and flowers for the head-dress, consisting of the choicest camellias, with flowers, buds and leaves . . . . .	1,000
5th. Pots of beautiful camellias in bloom, (200 at an average of 10 fr. each) . . . . .	2,000
6th. Bouquets for balls, at from 2 and 3 to 15 and 20 fr.: average, 5 fr. . . . .	20,000
Total commerce in flowers, for the balls and soirées of eight days . . . . .	42,600 fr.

The above is exclusive of the great sales constantly made in the *Marché aux fleurs*, or flower-market of Paris, which covers the area of two acres on the Quai Dessaix. The large amount of the above sale is easily accounted for, when we consider the great number of balls, public and private, which take place in Paris during the winter months. From the report made to the prefecture of the police, it appears that there had been, on a single night of February (Shrove-Tuesday), 875 private and 183 public balls. At the public court balls there are often assembled between 3 and 4000 persons.—*A. J. D.*

## ART. III. Domestic Notices.

*Mr. Russell's Garden and Nursery, at Worcester.*—Our correspondent, Mr. J. W. Russell, now at Mount Auburn, has erected, the past summer, in his garden here, and just completed, an excellent and well constructed green-house for growing both flowers and vegetables. Perhaps few of our readers are aware that Mr. Russell has lately purchased a fine piece of land, at a short distance from the centre of this flourishing town, containing upwards of thirty acres, part of which he intends to devote to a nursery, and the other to the production of vegetables for the market, for which, owing to the great increase of the population of the town, there is now much demand. There is a spreading taste for horticulture here, as the neat and well laid out grounds of some of the wealthy gentlemen will attest. It must be a source of much gratification to the citizens to have Mr. Russell select their vicinity for the establishment of his garden; and while we congratulate them upon the accession of a gardener among their inhabitants who possesses so much practical knowledge, we must lament his removal from our vicinity. We would state, however, that he does not contemplate to leave his present situation for some time; and we shall be much astonished if the proprietors of Mount Auburn are willing to dispense with his services, if a good salary will be any inducement for him to remain. The affairs of the cemetery are looked after with the interest of a proprietor, and we doubt if a person could be found who would perform the duties of the office in all its parts with the same fidelity. Mr. Russell has given the care of his garden at present to Mr. Hall, a very good cultivator, and he will remain where he now is for at least two or three years. When he does leave us, he will carry with him the good wishes of every person interested in gardening.—*Cond.*

*New seedling Pear.*—We have been just presented, by James Brown, Esq., of this city, with a fine native pear, originated in West Cambridge about seven years since. It bore a few pears in the season of 1835, and, during the one just passed, produced above a peck. We have not time or space to speak of its merits, otherwise than to say it will rank with the Dix, Wilkinson, and others of the best native sorts, but shall describe and name it after the raiser, who is an old inhabitant of the town of West Cambridge, in our next.—*Id.*

*Urdia speciosa.*—A fine plant of this splendid species is in the possession of J. W. Boot, Esq. of this city. It is about ten feet high, and its rich foliage is an object of surpassing grandeur. Such a fine specimen is rarely seen, but we anticipate the time when this, together with the whole of the noble order Musaceæ will be appreciated sufficiently to be grown in houses by themselves.—*Id.*

*St. Germain Pear.*—This noble fruit, which has been termed an "outcast" by Mr. Kenrick, in his *Orchardist*, has been raised in all the perfection of olden time in the garden of Mr. S. Sweetser, Cambridgeport. Some of the individual fruits were upwards of five inches in length. This does not look so much like an "outcast" as Mr. Kenrick would have us believe; and we are inclined to the opinion that climate and old age have less to do with the deterioration of many of what are termed "ancient" varieties, as the Doyenné Gris or St. Michael, brown beurré, &c., than careful cultivation, sheltered situations, proper soil and judicious pruning. The only complaints we have heard have been made by cultivators within a short distance of Boston; while throughout nearly the whole extent of the Union they are produced in all their original beauty and excellence. We have received, the past

fall, from the Messrs. Downing, Newburgh, New York, specimens of several of these "outcasts" which were from *old* trees, and which, we hesitate not to say, were never seen in greater perfection by Duhamel, or other equally eminent pomologists of his time.—*Id.*

*Aquatic Plants*, either hardy or tender, are rarely met with in our gardens: with the exception of a few of the former in the Botanic Garden at Cambridge, and one or two of the latter at Belmont Place, not one is believed to exist in this vicinity. Are they difficult of flowering when transferred from their native habitats, that they are neglected? Nothing is more beautiful than the nymphæas, and perhaps some remarks by your correspondents, who are acquainted with them, might be the means of drawing attention to the subject.—*S.*

*Lichen Tree*.—On the edge of a neighboring swamp in Scituate is an old and decayed apple tree, of a very large size, whose branches are covered with a profusion of lichens of two species, viz. *Umea florida* and *barbata*. Not a twig of its spray which is not enveloped in this singular drapery of cryptogamus vegetation! As I saw it leafless on a November morning, and in the midst of a violent shower, its appearance was highly picturesque and altogether unique. The moisture of the atmosphere had given a verdure to the vegetation, of that grayish-green color peculiar to those plants. It seemed some hoary patriarch of the vegetable world.—*R.*

*The Estate of the late Dr. Hosack* having been sold since his death, I understand the green-house collection will be offered for sale in the ensuing spring. The collection is remarkably rich in *banksias*, a noble genus of plants, of which the Doctor was probably fond, and the plants of the different species now at Hyde Park are believed to be the finest in the country, being thrifty and of large size. We hope these, as well as many other fine things in that collection, will fall into the hands of some amateur who will appreciate their value.—*Yours, N., New York.*

*Ilex opaca*, or *American Holly*.—This splendid native shrub [?] is now in all its glory, interspersed amidst the fine specimens of evergreen pines and hemlocks, or else rendered more conspicuous in itself, by its contrast with the leafless forest trees of a deciduous habit. Its rich scarlet berries, on short peduncles, glittering among the dark-green leaves, render it an exceedingly interesting object, even when seen at a considerable distance. This neighborhood can boast of several evergreen shrubs, such as the above, together with *Kalmia latifolia*, *Prinos glaber*, *Andrómæda calyculata*, and at Plymouth the alpine prostrate crowberry, *Empetrum nigrum*.—*R., Hingham, Nov. 30, 1836.*

#### ART. IV. *Queries, Criticisms, &c.*

*Malta Melon*.—Have any of your correspondents ever cultivated this melon? It is said to possess the rare quality of keeping three or four months without its flavor, which is also stated to be delicious, being in the least injured. Some information respecting it will be very acceptable to your friend and subscriber.—*S. Dec. 16th, 1836.*

*Maclura aurantiaca*.—Can Judge Buel have reference to this plant when he states, in the *Cultivator*, for December, that it is of slow growth, more tender than the Chinese mulberry, that the stems have been killed down to the ground every season, for eight or ten years in his garden, and that the fruit is similar to a black walnut? This statement is so

entirely different from all others that I have ever seen, that I am inclined to believe he refers to some other plant.—P. B. H. jr., *Cambridgeport*. Dec. 12th, 1836.

*Tree Mignonette*.—A correspondent of the *Gardener's Magazine*, vol. IX, states that the common or sweet mignonette, (*Reseda odorata*,) may be grown to the height of ten feet. Do any of your correspondents, especially some of those who have practised gardening in England, know what method of culture is pursued, to make it attain this great height? Some information would be much liked by one who is an admirer of this plant.—*Yours*, S., Dec. 16th, 1836.

#### ART. V. Massachusetts Horticultural Society.

*Saturday, Nov. 19th, 1836.—Exhibited.* From the Hon. E. Vose, Napoleon, Urbaniste, Frederic de Wurtemberg, Duchess d'Angouleme and Doyenné blanc pears; the latter very good specimens. From B. V. French, Capsheaf pears. From the Rev. Dr. Harris, Dix pears; these specimens were handsome but over-ripe. From B. Guild, Esq., Holland green, Crasanne and some other kinds of pears. From L. P. Grosvenor, Pomme Royal apples, a most excellent and valuable variety, a native of Connecticut, from whence it was introduced to this vicinity by him. Dr. Ford, Alna, Maine, sent specimens of the following apples for exhibition:—Baldwin, (not the old well known variety of that name,) Haley, Golden russet, King's pocket, spice and Plummer apples, all native fruits, and some of them deserving cultivation. From the Rev. H. Ramsdale, West Thompson, Conn., specimens of the following kinds were also sent for exhibition, viz. \*Chandler, Pomme Royal, large red sweet, \*Harvey, Hollow Crown, \*Reddick, large red, and belle et bonne: those marked with the star we tasted ourselves, and can recommend them as excellent varieties; all supposed native fruits. At this meeting specimens of the Sylvangette, presented at a former one, by the Hon. John Lowell, and the Mabelle, sent by the Messrs. Downing, (see vol. II, p. 456,) were tasted, as they were now mature; both were found to be excellent, particularly the latter, as we have before stated.

*November 26th.—Exhibited.* From S. Downer, Urbaniste, beurré Diel, Wilkinson, beurré Rance, Bleeker's Meadow, Messire Jean, Forelle and Burgermeester (?) pears; the specimens of some of these sorts were very beautiful; also, Ortleypippins, very large, and a fine fruit. From Hon. E. Vose, Napoleon and Frederic de Wurtemberg pears, the latter better known as the beurré Capiaumont, but which is not the true variety; also, Hubbardston Nonsuch apples, excellent.

*December 3d.—Exhibited.* From R. Manning, Napoleon and Figue de Naples pears; the latter not in a fit state for the committee to judge of its quality—heing past eating: also, Fall Harvey apples. From the Hon. E. Vose, Duchess d'Angouleme, Prince's St. Germain, and Frederic de Wurtemberg pears; the latter fine specimens, and better than we have ever tasted them: also, Marygold, Bellflower, Autumn pippin and Hubbardston Nonsuch apples. From M. P. Wilder, Columbia Virgalieu pears, from the original tree, in Westchester County, New York: this is a very good December fruit, and we shall notice it hereafter under our *Pomological Notices*.

*December 10th.—Exhibited.* From S. Sweetser, St. Germain

pears; beautiful specimens. From John Clapp, Reading, Verte Longue Panachée pears and Baldwin apples. From M. P. Wilder, beurré d'Arenberg and Young's baking pears; the former good specimens, from a young tree. From L. P. Grosvenor, Spitzemberg and black gilliflower apples. From John Heard, Esq., Green sugar pears.

## ART. VI. Faneuil Hall Market.

		From	To			From	To
<i>Roots, Tubers, &amp;c.</i>		\$	cts.	<i>Pot and Sweet Herbs.</i>		\$	cts.
Potatoes :				Parsley, per half peck, . . . . .		25	
Common, { per barrel, . . . . .	1	50	1	75	Sage, per pound, . . . . .	17	20
		62½		75	Marjoram, per bunch, . . . . .	6	12
Chenangoes, { per barrel, . . . . .	1	75	2	00	Savory, per bunch, . . . . .	6	12
		62½		75	Spearmint, per bunch, . . . . .	6	
Eastport, { per barrel, . . . . .	2	25	2	75			
		1	00	1	25		
Turnips: common,					<i>Fruits.</i>		
per bushel, . . . . .		50			Apples, dessert :		
French, { per barrel, . . . . .	1	50			Common, { per barrel, . . . . .	1	50
		50				75	1
Onions :						2	00
per bushel, . . . . .	1	00	1	25	N. Y. Pippins, { per bushel, . . . . .	1	00
red, { per bunch, . . . . .		4		6		1	00
white, { per bunch, . . . . .		4		6	Russets, { per barrel, . . . . .	2	00
Beets, per bushel, . . . . .		75	1	00		2	00
Carrots, per bushel, . . . . .		75	1	00	Baldwins, { per barrel, . . . . .	2	00
Parsnips, per bushel, . . . . .		75	1	00		1	00
Salsify, per bunch, . . . . .		12½			Golden Pippins, per bushel, . . . . .	1	50
Horseradish, per pound, . . . . .		12½		17	Bellflower, per bushel, . . . . .	1	50
Radishes, per bunch, . . . . .		12½		20	Pears :		
Shallots, per pound, . . . . .		20			St. Germain, per dozen, . . . . .	50	1
Garlic, per pound, . . . . .		14			Passe Colmar, per dozen, . . . . .	50	1
					Chaumontel, per half peck, . . . . .	1	00
<i>Cabbages, Salads, &amp;c.</i>					Messire Jean, per half peck, . . . . .	37½	50
Cabbages : per dozen,					Baking, { per barrel, . . . . .	3	50
Savoy, . . . . .		50				1	50
Drumhead, . . . . .	1	00	1	50	Quinces, per bushel, . . . . .	2	25
Red, . . . . .	1	00	1	50	Cranberries, per bushel, . . . . .	4	50
Cauliflowers, each, . . . . .		25		50	Pine Apples, each, . . . . .	25	37½
Lettuce, per head, . . . . .		10		12½	Grapes: (foreign,) per pound, . . . . .	20	25
Celery, per root, . . . . .		12½		25	White Malaga, . . . . .	20	
Spinach, per peck, . . . . .		25			Purple Malaga, . . . . .	20	
					Berberries, per bushel, . . . . .	2	00
<i>Squashes and Pumpkins.</i>					Oranges, { per box, . . . . .	3	00
Canada, per pound, . . . . .		6		7		25	50
Winter crook neck, per pound, . . . . .		4		6	Lemons, { per box, . . . . .	5	00
Lima, per pound, . . . . .		4				37½	50
West India, per pound, . . . . .		3		4	Shaddocks, each, . . . . .	25	
Pumpkins, each, . . . . .		12½		20	Chestnuts, per bushel, . . . . .	4	00
						4	50
					Walnuts, { per barrel, . . . . .	2	25
						2	25
					Almonds, (sweet) per pound, . . . . .	12	14
					Filberts, per pound, . . . . .	4	6
					Castana, . . . . .	3	6

REMARKS.—Owing to the open weather during the month nearly up to this date, which is rather unusual at this season, the market has been tolerably well supplied with the various articles; last year the early



snow, which fell in the latter part of November, completely buried up whole crops of turnips and cabbages, and, in some instances, potatoes and other vegetables; had the winter set in as early this year, the supply at the present time would by no means be adequate to the demand. Of potatoes there is a fair supply: some few have arrived, and though sales are rather dull, the prices seem to be maintained; Eastports are exceedingly scarce, and sell at our highest quotations; very few St. Helenas have come to hand this year; they have been asked for, and would command a good sale: sweet potatoes are all gone. Turnips, onions, &c. are as abundant as usual at this season. Horseradish has been received in tolerable supply, owing to the open weather, but within a few days it has been more scarce, and the price advanced. Cabbages of all kinds are still scarce; Savoy command a slight advance from our last. We have not seen any brocolis this month. A few cauliflowers occasionally come to hand, which are very readily taken. Spinach is uncommonly abundant; we have rarely known so great a supply and prices so moderate at this season; it comes in very handsomely grown and of good size. Of West India squashes there have been some arrivals of small lots, the first of the season, since our last; a slight depression in the prices of poorer common kinds has been the consequence; those already received are handsome and of tolerably large size.

In apples, and, indeed, most other fruits, there is not much doing, and sales are rather dull; prices remain moderate, and the supply is sufficiently large for the demand; a large lot of bellflowers have arrived from the neighborhood of Philadelphia, and are sold at retail in greater quantity than any other sort; it is a fine apple: a few bushels of handsome golden pippins have come in, which were raised in the vicinity. Fine varieties of pears were never so plentiful; good Passe colmars and St. Germaines are now to be had, as also some Chaumontels; it is gratifying to see these excellent fruits introduced to our market. Pine apples are scarce. Foreign grapes are yet abundant, continued supplies having been received by recent arrivals; they come in good order this season. Walnuts are quite abundant and of good quality this winter. —*Yours, M. T., Boston, Dec. 20th, 1836.*

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#### ART. VII. *Meteorological Notice.*

##### FOR NOVEMBER.

NOVEMBER throughout was a cold month, the thermometer falling below 15° for several mornings the last week. The frost in the ground averaged upwards of six inches in depth during this cold spell, and had not a thaw succeeded early in December, the planting of many sorts of bulbs must have been put off until spring. No snow fell: last year it covered the ground the 23d, and did not disappear until April. The mean temperature, as will be seen by the following table, was very low.

**THERMOMETER.**—Mean temperature, 32° 50'—highest, 53°; lowest, 10° above zero.

**WINDS.**—N. three days—N. E. two—E. four—S. five—S. W. five—W. four—N. W. seven days.

**Force of the Wind.**—Brisk, nine days—light, twenty-one days.

**Character of the Weather.**—FINE, two days,—FAIR, fifteen days—CLOUDY, thirteen days.

**Rainy,** five days.

## HORTICULTURAL MEMORANDA

## FOR JANUARY.

UNDER this head we shall continue to give the same information as we have heretofore, believing it to be useful to a great portion of our readers. Some may object to it as being a repetition of the same thing year after year; but if useful in the first instance, it must be so still, as it will preclude the necessity of continually referring to back volumes. New plants, too, occasionally come under this head, which may not have been noticed before. Until our readers shall think that there is no necessity of a monthly calendar, we shall continue to insert it.

## FRUIT DEPARTMENT.

*Grape vines* in the green-house or grapery, which have been pruned, should have their shoots tied up singly to the rafters, or, if more convenient, bundled together and laid along horizontally with the front sill. Shoots intended for cuttings, in the spring, may be preserved in the cellar, by inserting their lower ends in some moist soil.

*Peach trees* grown in graperies, or in houses by themselves, will require pruning, if not done before. Trees in pots may be placed in the cellar for protection.

*Strawberries* in pots for forcing, may be now placed in a pit or stove, very near the glass; give a deal of air, to ensure a good setting of fruit. Water sparingly while the flowers are expanded. Now is a good time to sow the seeds, in boxes, in greenhouses, pits or hot-beds.

## FLOWER DEPARTMENT.

*Camellias* will now be advancing their flower-buds rapidly. Give good supplies of water, and in very fine weather an occasional sprinkling with a fine rose syringe, with perfectly pure water. Sow the seeds now in small pots, five or six in each.

*Cereuses, cactuses, &c.* must be watered very sparingly for a month or two.

*Hyacinths* and other bulbs, planted in November, may now be introduced into a warm part of the green-house to flower.

*Sparaxis, ixias, &c.*, where not planted, should have the same done this month.

*Heaths*: give these judicious waterings, and place them in an airy part of the house, and not very near the flues or hot water pipes.

*Azaleas* and *rhododendrons*, as soon as the least sign of growing or flowering is perceived, should receive liberal supplies of water.

*Amaryllises* of most sorts will not now require any water, unless placed in the stove.

*Alstromerias* will require potting off into a good compost as soon as they begin to grow.

In the green-house give frequent airings if the weather will permit: pick up all dry leaves, and spill as little water as possible in watering the plants. Dampness is always troublesome in the months of December and January. Fumigate often to destroy insects. In the stove continue to propagate all kinds of plants; and those sorts that are growing freely may be watered more plentifully.

## VEGETABLE DEPARTMENT.

*Cucumber beds* should be made up this month, or the dung put in preparation for making up the next.

*Lettuces* and *radishes*, in frames, will require air every fine day, but should be covered warm at night.

*Cabbages, cauliflowers, &c.* may be now sown for a very early crop.

# THE MAGAZINE

OF

## HORTICULTURE.

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FEBRUARY, 1837.

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### ORIGINAL COMMUNICATIONS.

ART. I. *Microscopic Observations.* No. I. By A CORRESPONDENT.

WHOEVER has taken any notice of the forms and modification of leaves, must have observed a diversity of pubescence in the greater or less number of hairs which constitute that peculiar and organic structure. Thus the beautiful ciliæ on the margin of some, as *Oxalis*, sp., the woolly appearance on others, *Verbascum*, *Gnaphalium*, *Stachys*, the serocious clothing of *Leucadendron argenteum*, the soft and close pile of *Pycnanthemum*, the fragrant apparatus of *Méntha*, and the poisonous, stinging armature of *Urtica* and *Loësa*, are familiar examples. The functions such organs perform in the general economy of the plants have not been satisfactorily ascertained. Absorption and exhalation have been supposed to be effected by their agency. As a protection from undue heat or moisture they have been considered of importance. For the former purpose they must serve as a defence from the sun to those minute pores which exist on the surface of the leaf. In the latter instance they should answer a similar purpose to the glaucous investment on smooth foliage, technically called *the bloom*, which, though easily removed, has an astonishing power in the repulsion of water.

Notwithstanding most plants are furnished with pubescence in some stages of growth, or on some parts of their structure, yet whole families and groups are entirely destitute of it. Such are the thick leaved and succulent kinds. Even here we have notable exceptions in the fierce and strong-armed species of the *Cacti*, many of which are completely invested, on their leafless stems, with a larger and smaller series of prickles, improperly,

as we think, termed spines, which, physiologically considered, are abortive branches, needing only peculiar circumstances to call them into a gemmiferous and leafy habit. Here then the character of pubescence is changed or modified, from delicate vascular structures, to rigid and indurated forms.

The leaves of aquatic plants are also destitute of such organs. The leaves of amphibious vegetables are smooth when under water, but of a different form and texture when emersed. Several species of *Ranunculi* have sets of foliar appendages, with different degrees of pubescence.

From these and similar considerations we should conceive that a system of pubescence on different plants might afford important data in the methods of studying their habits, and employing the results of such study to their certain and successful cultivation. Thus, if it be true as has been conjectured, that the office of the hairs, which constitute the pubescence, be to prevent a too rapid evaporation from the stomata of the leaves, and to protect their surface from too great heat or moisture, then where these natural provisions are artificially effected, should we not notice some change in their general economy? Or, were these minute organs intended to facilitate evaporation by creating a greater surface without extending the amplitude or circumference of the leaf, ought not a change in their nutrition effect a corresponding change in their economy? To what end are the young leaves so abundantly provided, which on maturation lose such a provision? Or why, as others expand, (for instance, those of the horse-chestnut,) they part with the superfluous covering, so palpably apparent in their primary expansion? In these two cases there would seem to be a temporary provision against the effect of cold in the critical period of their vernalion.

But the structure of the pubescence, as well as its presence, claims our attention and admiration. Perhaps there are few subjects for the microscope of greater interest, so far as real beauty and elegance of form is concerned, than may be found in the pilose clothing of leaves of different plants. The more astonishing discoveries of physiological botany which this instrument, in the skilful hands of the patient investigator, have made and given to the world, require a peculiar genius and talent, with great nicety of operation, to trace. The difficulty of procuring proper instruments, and the expense of accurate ones, have excluded these deeply interesting studies from many an inquirer into the mysteries of organized matter. Nor are experimentors themselves mutually agreed respecting various minute but important organs, as their form, function or even existence. Not imperceptible to unaided vision, as are these just mentioned, the pubescence, with ordinary instruments of considerable power, will display diversity and beauty combined. A bouquet from the green-house, the few plants of our own cultivation in the

parlor, may serve to pass many a tedious hour of winter, when we are secluded from the free participation of studies connected with an outdoor communion with Flora. Radiating from the lamina of a simple leaf, we may discover myriad mimic stars in a limited field of a few inches. Transparent crystalline bead on bead may be seen in a single hair of another species. Jointed in distinct and frequent articulations, you will have the mimicry of the stately *Bambusa* (Bamboo) in the length of an eighth of an inch. Furcillated and pectinated, plumose and simple, solitary or by pairs, their forms are equally of individual and peculiar interest. The fang of the rattlesnake, (*Crotalus*.) with its remarkable structure, is displayed in the excretory hairs of the *Urtica*, while the highly irritating pubescence on the pods of *Dolichos pruriens* (*Mucuna pruriens* Dec.) has furnished a valuable article in the practice of pharmacology.

The fragrance with which the foliage of some plants is furnished, and which it gives out when bruised, proceeds from a variety of organs appropriately contrived to secrete it. Among others we have noticed a curious provision in *Primula prænitens*, whose leaves possess a not unpleasant odor.\* A minute section of a leaf submitted to a magnifying power of two thousand five hundred times, and in a vertical direction, displayed a great number of perfectly transparent hairs of various lengths, each surmounted with a gland, from which issues the peculiar odor of the leaf. The delicacy of this body requires that considerable care be used in preparing the section of the leaf for the microscope. The glandular summits of several were broken, and exhibited a flaccidity such as might arise from the rupture of an attenuated juice from between the delicate and thin membrane of the hair. The young shoot of *Verbena Melindres* (*chamædrisolia* Swt.) submitted to the same test, was furnished with flat and twisted hairs, inserted on a short pedicel, and articulated with it. The cellular tissue of the mosses affords a spectacle of no ordinary interest; but we could not have previously conceived that a few such seemingly simple and uninteresting objects could have opened to us such a field of observation, instruction and delight.

Hoping to be able to pursue the subject more in minute detail at some future time, we may be prompted to give the results to this journal, should the present number prove acceptable.

Yours,

A CORRESPONDENT.

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\* So far from considering the odor of the foliage of this beautiful plant at all unpleasant, we view it as a property recommending it to cultivation. A few leaves in a bouquet add a more agreeable odor, to our mind, than those of the rose geranium.—*Cond.*

**ART. II. Pomological Notices:** *Notices of one hundred and twenty-six varieties of Pears which have ripened their Fruit during the season of 1836, in the Pomological Garden, Salem, Mass.* By R. MANNING, Esq. *Some Account, together with a Description, of a new native Seedling Pear.* By the CONDUCTOR. *Notice of the Mabille Pear.* By Messrs. C. & A. J. DOWNING, Botanic Garden and Nursery, Newburgh, N. Y.

WE conclude Mr. Manning's excellent paper with this number; and we have no hesitation in saying that in his remarks is embraced a large amount of information respecting the great number of fruits of which he writes. In addition to those enumerated, twenty or thirty other fruits, received as different varieties, attained perfection the past year; but as there were some doubts about the correctness of the names, a notice of their merits is deferred to the end of another season.

55. *Beurré Diel* Pom. Mag.—One of the new Belgic pears: it is of first rate excellence and ripens gradually, in the house, in the early part of winter. The tree produces abundantly, and grows vigorously, but is of a crooked and irregular shape. The pear which I have received from several sources as the Colmar Souverain, proves to be the same as this. There is, no doubt, a true Colmar Souverain not yet received in this country.

56. *Easter Beurré* Pom. Mag.—The best very late pear yet known: it is in use in March, April and May. The tree grows vigorously, and is an early as well as a great and constant bearer. The Bergamotte de la Pentecôte of the French and Flemings is undoubtedly the same as this, although the editors of the *Pomological Magazine* are of a different opinion.

57. *Beurré Gris*. Synonyme: *Brown Butter*.—One of the best, if not the very best of the old varieties. In exposed places these pears are worthless, but in protected gardens, in cities, or trained to a wall, they are still excellent.

58. *Bezi Vaet*.—This is undoubtedly an old variety, although new with us. The tree attains a large size before it produces fruit, but then bears abundantly. The flavor of the fruit is fine, in this respect resembling the Bezi Chaumontel. I had an abundance of these pears during the past season, but, I regret to say, not one fair and perfect specimen; all had the appearance of the old varieties.

59. *Black Pear of Worcester*. Synonyme: *Iron Pear*.—A large and very productive baking pear, one of the most profitable fruits for the market. The tree is a great and constant bearer.

60. *Bleecker's Meadow*.—A native fruit from New York. The tree grows vigorously, and attains a large size before it

bears. The pears of this kind sent from New York are very fine; but those raised in my own garden did not arrive at the same perfection. I think that this tree, like the Seckel, requires a rich soil in order to produce fine fruit.

61. *Roi de Wurtemberg*. Synonyme: *Capiaumont* of the Pomological Magazine.—The tree produces abundantly. The fruit is very fine and handsome, and in every respect entitled to extensive cultivation. Ripe in October.

62. *Catillac Duhamel*. Synonyme: *Forty Ounce Pear* of the French gardeners.—A very large and productive winter baking pear.

63. *Bezi Chaumontel*.—An old variety of first rate excellence; it is very productive, and not subject to crack. Its only fault appears to be a disposition to rot before it becomes mellow; when this is the case, it may be baked, for which it is well adapted.

64. *Delices d'Hardenpont*.—This new pear produced a few imperfect fruits for the first time the past season, (1836.) Further proof and a more favorable season are necessary in order to judge of its merits.

65. *Duchess d'Angoulême*.—A very large and productive pear, of recent origin. In order to produce fruit as large and as handsome as that figured in the *Pomological Magazine*, I think the trees should be trained to a wall in a rich soil. Mine were standard trees, in a rather poor soil, and the fruits did not answer the expectations I had formed, from seeing the specimens produced in the highly cultivated gardens in the vicinity of Boston. Ripe in November and December.

66. *'Echasserie Duhamel*.—A very productive winter table pear; in some seasons very fine. I have seen them in the market in Boston, equal to the very best winter pears. They are of small size, except in a rich soil. The leaves are indented, and the young wood is weak, and bent at every eye.

67. *Glout Morceau*.—This has till lately been cultivated as the beurré d'Aremberg; the French gardeners still continue it by that name. After the experience of several years I do not consider it as a first rate fruit. It is produced in abundance, hangs late on the trees, and ripens in the early winter months.

68. *Martin Sec Duhamel*.—An old variety: although in some catalogues it is called "fine," I have found it so indifferent that I shall not continue its cultivation. Ripe from November till January.

69. *Messire Jean*.—A well known pear, of a sweet and agreeable taste, breaking like an apple in eating. It is productive and well suited to the market, but only of second rate quality. Ripe in October and November.

70. *Winter Orange*.—A very productive old variety. The

leaves are smooth and the young wood downy; the fruit is small and not very desirable. Ripe in January and February.

71. *Lewis*.—A native fruit from the vicinity of Boston. The trees are vigorous and healthy, producing immense crops, and the fruit highly deserving of cultivation. November and December.

72. *Louise Bonne*.—An old early winter pear. In some seasons I have raised them of middling quality; but, taking into consideration the large number of fine fruits which ripen at the same time, I have determined to discontinue the cultivation of this variety. I have received, as the Long Rose-water, a pear which proves to be the same as this.

73. *Passe Colmar*.—One of the best and most productive of the new Flemish pears. My trees bear abundant crops of fine fruit every season, yet their rapid and vigorous growth is not in the least impeded; the young shoots become ripe in June, immediately blossom, and produce a second crop of fruit, of a small size and oblong shape. Trees which I have received from various sources, as the beurré d'Argenson, prove to be the same as the *Passe Colmar*. The fruit ripens in November, and will continue in eating till February.

74. *Pound Pear*.—The pear cultivated in New England under this name is the largest, the most productive, and the most desirable of all the winter baking pears. From all the evidence I have been able to collect, I have no doubt that this is the *Treasure pear*, described and figured in the old edition of *Dumhamel*.

75. *Prince's St. Germain*.—Raised from seed in the nursery of W. Prince & Sons, at Flushing, L. I., near New York. The tree is a great bearer, but in my garden the fruit is but of second rate merit compared with those of high excellence which ripen at the same time. January and February.

76. *Raymond*.—A new fruit, raised from seed by Dr. Joseph Wight, of Raymond, Maine, from whom I obtained grafts several years since. The growth of the tree is weak, and the shape crooked; the leaves are small; it produces abundantly, and the fruit is decidedly of first rate quality: it has been eaten with the *St. Michaels*, and decided to be equal to that old variety in its most perfect state. Ripe in September and October.

77. *Sabine d'Été*.—Grafts by this name have been received from various sources, and they all prove the same as the old English Red Cheek. The true fruit is yet to be obtained from Europe.

78. *St. Ghislain*.—One of the new Flemish pears. The trees are healthy and grow vigorously, and the fruit is not excelled by any that ripens at the same time, and cannot be too extensively cultivated. Ripens in September.

79. *St. Germain*.—I have been unable to raise this variety,



which is so fine in the gardens of Boston and New York, and in the vicinity of those cities. After a trial of several years, I shall now discontinue its cultivation.

80. *Styrian*.—The grafts of this variety were received from England; its origin is unknown. It produced fruit for the first time this year; but, the season being unfavorable, it was hardly of second rate quality. Like the *Passe Colmar* and the *Roi de Wurtemberg*, it produces a second crop of fruit. Ripe in October and November.

81. *Surpass St. Germain*.—The grafts received by this name produced for the first time the past season (1836.) The crop was abundant and the fruit handsome and very good, but I have doubts as to the correctness of the name. The *Surpass St. Germain* is stated by European writers to ripen in winter; mine were in perfection in September. At any rate it is worthy to be cultivated, and its true name may perhaps be ascertained at some future time.

82. *Washington*.—A native pear from New Jersey. Very productive, handsome and good, though it cannot be decidedly termed a first rate fruit. Ripe in September.

83. *Wilkinson*.—A native fruit from Rhode Island. The tree is vigorous and healthy, bearing early and abundantly; the fruit beautiful and highly flavored. If these qualities constitute a first rate pear, this may be pronounced inferior to no other ripening at the same time, which is in October and November.

84. *Winter Nelis*. Synonyme: *Bonne de Malines*.—I received grafts of this variety from Mr. Lowell: my trees have produced for two or three years. At first the fruits were small, and wilted in ripening, which led me to form an unfavorable opinion of them; but in the past most unpropitious season, I have had an abundant crop of fine pears; they are now (January 7,) in eating, and, in my judgment, are equal to the best of the season.

85. *Saunders Beurré*.—A foreign pear, found in the garden of Thomas Saunders, Esq., of Salem. The tree is a great bearer, and the fruit good, but in the opinion of many persons, not decidedly first rate. Ripe in September.

86. *Beurré de Bollwiller*.—This tree is a great bearer; but, after the experience of several years, I feel justified in pronouncing the pears, either for the table or for baking, inferior to most others which ripen at the same time. February and March.

87. *Beurré Bosc*.—Grafts received from Dr. Van Mons, and from the London Horticultural Society. The trees produce early and plentifully. The fruit is oblong, of a cinnamon russet color, and will undoubtedly, after the trees arrive at a good size, prove of first rate excellence; for so it is described by European writers. Ripe in September and October.

88. *Golden Beurré of Bilboa*.—This fine pear was imported from Bilboa, by Mr. Hooper, of Marblehead. The tree is a good bearer; the fruit of a cinnamon russet color: it resembles the Doyenné Gris, but is more oblong in shape: it ripens in October. We shall no doubt find it under its true name among the numerous varieties received from authentic European sources.

89. *Bowdoin*.—A native pear raised from seed in the vicinity of Boston; it is large, with a thick skin; ripe in September. The tree is a good bearer, but the fruit is only of secondary merit.

90. *Burgermeester*.—The pear cultivated under this name near Boston is large, and the tree a great bearer. Those raised in my own garden were of indifferent quality; but some sent me from Medford a few days since were very fine. It is proper to observe that this cannot be the true Burgermeester, as it does not agree with the description given in the *Catalogue* of the London Horticultural Society, nor with the grafts received from Mr. Thompson, nor with the trees sent by the Messrs. Baumann of Bollwiller; it is however worthy of cultivation.

91. *Colmar Sabine*. Synonyme: *Flemish Sabine*.—This tree bore for the first time the past year, therefore we cannot decide with certainty upon the merits of the fruit, of which there are two crops, ripening in the winter.

92. *Dearborn's Seedling*.—Produced from seed by Gen. Dearborn, late President of the Massachusetts Horticultural Society. The tree is a great bearer, and the fruit very beautiful in appearance, of a whitish yellow color, with russet round the stem. When eaten ripe from the tree, it is surpassed by no pear of the same season. Ripe in August.

93. *Double-Eyed*.—A pear of second rate quality, ripe in August. Excelled by most others ripe at the same season.

94. *Figue of Naples*.—As this is the first year that the trees of this variety have borne, we cannot judge of the excellence at which the fruit may arrive in a more favorable season. The grafts were received from the London Horticultural Society, in whose catalogues it is described as a pear of first rate quality.

95. *Frederic of Prussia*.—The tree received with this name bore fruit of very indifferent quality; but the name may not be correct. Its genuineness will be tested by grafts received from other sources. Ripe in October.

96. *Fulton*.—A native fruit from Topsham, Maine. A great bearer; of a russet color, and worthy of cultivation. Ripe in October and November.

97. *Green Pear of Yair*.—Grafts received from the London Horticultural Society. The tree is a most abundant bearer, and the fruit, though not first rate, deserves to be cultivated. Ripe in September.

98. *Remsen's Favorite*.—This is said to be a native pear, but is only of secondary quality. The trees produce fruit when young. Ripe in September.

99. *Sabine*, of the French.—Grafts received from the London Horticultural Society. Though not a first rate fruit, it may be considered worthy of cultivation where an extensive collection is desired. Ripe in December and January. The trees received from other sources, as the Josephine and Jaminette, prove to be the same as this.

100. *Green Summer Sugar Pear* of Hogerswerda.—This is described by the German writers as a first rate fruit; but though there is not the least doubt that we possess the true sort, it is, in this climate, entirely unworthy of cultivation when compared with other pears of the same season. Ripe in August. The tree is a great bearer.

101. *Summer Melting*.—I do not find this pear described under this name by European writers or in European catalogues. The tree is a great bearer, and the fruit, though not first rate, is worthy of being retained in any collection. August and September.

102. *Surpass Virgoulouse*.—I received this tree from the late Mr. Parmentier, of Brooklyn, New York. It produces large crops every year, and in seasons more favorable than the past, the fruit has been decidedly first rate. October and November.

103. *Forelle*. Synonyme: *Trout Pear*.—This is placed by European writers in the highest rank of good pears. My trees grow strong and healthy, but the fruit does not appear to come to perfection. Its character is so high in Germany that we ought to continue to cultivate it; it may eventually prove to be of great excellence. October and November.

104. *Chair à Dame*.—One of the old French fruits. The tree is a good bearer, but the fruit, though sweet and sugary, is only of secondary merit. Ripe in August.

105. *Princess of Orange*.—The tree received by this name has borne for several years large crops of good pears, but this year they were very inferior, and ripened badly. A most distinguished pomologist from Belgium thinks that it cannot be the true Princess of Orange. Ripe in October.

106. *Sugar Top*. Synonyme: *July* or *Harvest Pear*.—This is said to be a native fruit. The trees attain a large size before they bear. The fruit sells well in the market, but is dry and inferior to several other sorts that ripen at the same season. August.

107. *Windsor*, of the English. Synonyme: *Early Bell* of New England.—This tree bears well: the fruit is large, but dry and deficient in flavor, and its cultivation should be discontinued. It no doubt originated in England, as it has never been found

among the numerous French varieties received in this country. Some persons have supposed it to be the Cuisse Madame of the French; but I think further experience will prove that this opinion is incorrect, as it does not agree either in the wood, the leaf, or the fruit, with Duhamel's description of the Cuisse Madame.

108. *Beurré d'Angleterre*, or *English Butter*.—This tree is a good bearer, but the fruit, though very extensively cultivated for the market of Paris, is with us only of second rate merit: it ripens in September, when many of our choicest pears are in perfection.

109. *Holland Bergamotte*.—An old variety. It keeps till late in the spring; but I have determined to discontinue its cultivation, as it is very inferior to many of the new varieties which ripen at the same time.

110. *Beurré Rance*. Synonyme: *Hardenpont du Printemps*.—This new pear is figured and described in the *Pomological Magazine*. My trees have just begun to bear. The fruit appears to be apt to shrivel in ripening; but further experience will no doubt prove it to be here, as in Europe, a first rate late winter pear.

111. *Musk Summer Bon Chrétien*.—This pear is smaller than the old summer Bon Chrétien or Gracioli, which is still cultivated in many gardens in our cities. We ought not to attempt the cultivation of either of these varieties in exposed situations. It ripens in August, and is inferior to many other sorts.

112. *Spanish Bon Chrétien*.—This pear is large and handsome, but in our climate it does not arrive at perfection as a table fruit; it is suited only for the kitchen, and ripens in January, when we have many others as good or better.

113. *Winter Bon Chrétien*.—This also is an old variety, once celebrated as the best of all winter pears. Though my trees are on quince stocks, trained as dwarfs, the fruit is very inferior. The Bon Chrétien d'Auch proves with me to be the same as this.

114. *Endicott*.—The original tree of this native variety is yet standing on the old Endicott farm, in Danvers: it produces well, and in some seasons the fruit is of good quality; but it can only be placed in the second class of table pears. Ripe in October.

115. *Gansel's*, or *Brocas Bergamotte*.—An old pear, of English origin. I cannot bring it to perfection in my garden, but in the enclosed gardens of this city the trees of this kind produce yearly good crops of fine fruit. Ripe in September and October.

116. *Arch-duke of Austria*.—This tree bears well every year: the fruit is handsome, but very dry and of inferior quality. Ripe in September. It may prove to have been received under a wrong name.

117. *Beurré de Nuremburg*.—This was received from a celebrated establishment in France as a specimen tree; it bore the second year, and the fruit was of inferior quality, both for the table and for baking. Ripe in January and February.

118. *Orange Musk*.—This old pear was again produced in my garden from a dwarf tree. It is dry and mealy, and unworthy of further trial. Ripe in August.

119. *Pastorale*.—An old French winter pear. In the *Catalogue* of the London Horticultural Society, it is described as a second rate fruit; but with me it hardly merits even that character. It ripens badly, and is deficient in flavor.

120. *Reveillere le Paux*.—This tree was received from France, and high expectations were entertained of its excellence; but it is found to be dry and unworthy of cultivation in comparison with many other sorts which ripen at the same time. September.

121. *Sarazin*.—This is another of the old French winter pears. The tree produced a great crop this year: the pears are large and handsome: they are not yet mellow, but present no indications of excellence, either for the table or for baking.

122. *Thompson's*.—A small winter pear, the grafts of which were received from New Hampshire, where it is said to have originated. It is wholly unworthy of cultivation.

123. *Vallée Franche*.—The scions of this tree were received from the London Horticultural Society. It is a great and constant bearer: the fruit is of excellent quality, and it deserves to be extensively cultivated. Ripe in September.

124. *Beurré Von Marum*.—A new pear, noticed in Dr. Van Mons's *Catalogue*. The tree bears well; the fruit is large and good, and appears to deserve a place in any collection. Ripe in October.

125. *Williams's Double Bearing*.—This tree was produced from a seed of the St. Germain, in the garden of Mrs. Williams, in Salem. It bears two distinct crops of fruit every year, more curious than useful. Ripe in September and October.

126. *Williams's Early*.—This tree, produced from seed by Aaron D. Williams, Esq., of Roxbury, has borne fruit in my garden for two years: it bears well: the fruit, which ripens in August, deserves to be placed in the first class of table pears.

127. *Bancroft's Hamburg*.—This tree was imported from Hamburg. It produces plentiful crops of large and good fruit: ripens in September, but cannot be esteemed a first rate pear. It answers well to the description of the Ronville, figured in the new edition of Duhamel, and may prove to be the same.

128. *Holland Green*.—This pear again made its appearance in my garden from a branch left ungrafted. The *Catalogue* of

the London Horticultural Society describes it as worthless: in our climate it deserves no other character.

129. *Capsheaf*.—This pear is much cultivated in Rhode Island, where it perhaps originated; but I have no accurate information as to that point. When it was first exhibited it was supposed by some persons, from a faint resemblance, to be the Doyenné gris; but further examination proves it to be a totally distinct fruit. The tree is a great bearer; the pear is of a light russet color, and, though not highly flavored, is entitled to cultivation as an excellent market fruit. Ripe in October.

As soon as my leisure will permit, I shall send you an account of such apples, plums and cherries as I have proved.—*Yours*,  
*R. Manning, Pomological Garden, Salem, Jan. 7, 1837.*

In our last, p. 35, we stated that we had been presented with a seedling pear, which we should describe and name in the present number. We had intended to have accompanied this notice with an engraving of the fruit; but as a mere outline gives but a faint idea of the natural appearance of a variety, we have omitted it at this time.

The pear is the produce of a tree which was raised from seed in the excellent fruit garden of Mr. James Locke, of West Cambridge. Mr. Locke possesses one of the largest orchards in the state of Massachusetts, and the excellent condition in which it is kept may serve as a pattern to many farmers who allow their orchards, after they have once began to produce fruit, to take care of themselves. As an evidence of the flourishing state of his trees, a few years since, *twenty-five barrels* of apples were gathered from *one* tree. This is no exaggeration, as the gentleman who presented us with this pear has himself been an observer of the fact.

In the orchard of Mr. Locke are a large number of Baldwin apple trees, the scions of which were taken from the original tree of this fine sort, and grafted with his own hands. The cultivation of fruits has always been a source of great pleasure to Mr. Locke, and it was with a desire to procure new varieties, that the seeds of the pears, from which this variety was produced, were planted.

Seven years since Mr. Locke planted a great quantity of pear seeds upon an old asparagus bed: a large number vegetated, and the trees grew vigorously, and soon attained a large size. During the severe winter, however, of 1834, every tree was destroyed except the one which produced this pear. This tree came into flower the following season, and bore a few pears; the past year it produced upwards of a peck. The specimen which we tasted was rather over-ripe—but its merits are sufficient to place it with our best native seedlings. We append the follow-

ing description, and have named it after the raiser, who deserves the thanks of all horticulturists for his labors in endeavoring to produce new varieties.

*Locke pear*.—Fruit pretty large, roundish, oblong, somewhat similar in shape to the Doyenné blanc or St. Michael, but rather more pyramidal, two inches and three quarters in length, and two and a half in diameter. *Stalk* one inch long. *Eye* small, contracted, and very slightly depressed. *Skin* yellowish green, with spots of a darker hue intermingled with russet. *Flesh* buttery, with a little grit at the core, exceedingly sweet, with an agreeable aromatic flavor. In eating in December.

The seeds were either from a St. Germain or the Doyenné blanc; but which, Mr. Locke is uncertain; the wood has the appearance of the former variety. As the trees advance in age the specimens will probably be larger than they were this season.—*Cond.*

*The Mabelle Pear*.—This most excellent winter fruit came into our hands through the late Dr. Hosack, of Hyde Park, New York. The doctor cut the graft, in our presence, from a dwarf at that time growing in his garden, and which he stated was obtained by him from Messrs. Buel & Wilson, of Albany. Judge Buel has lately informed us, in answer to our queries on this subject, that it was imported by him four or five years since among one hundred new varieties from Vilmorin, Andrieux & Co., Paris, and that duplicates having been received, one of each kind was sent to Dr. Hosack. Messrs. Buel & Wilson, it appears, have lost sight of their tree, which has not fruited or been propagated from. Whether the tree at Hyde Park is yet living we are unable to say—our graft was inserted upon a large tree, where it produced fruit abundantly the past season. From the fact that this variety has had no reputation in pomological works, we have not hitherto propagated it, but shall endeavor to do so largely the coming season. The fruit, as you will recollect from the specimens exhibited by us before the Massachusetts Horticultural Society, is of large size, fine golden yellow color, and of the richest and most delicious flavor: ripe in December. We think it approaches the Colmar in form more than any other variety, though much superior in every respect to that kind. It is decidedly different from any of the new European sorts hitherto imported by us. *C. & A. J. Downing, Botanic Garden and Nursery, Newburgh, N. Y.* [Our correspondents have anticipated us in the notice of this very superior fruit; and we are glad to hear that they intend to propagate it largely the present year. In our opinion it is the *very best* December fruit we have ever tasted.—*Cond.*]

**ART. III. *Notices of Culinary Vegetables, new or recently introduced, worthy of General Cultivation in private Gardens or for the Market.* By the CONDUCTOR.**

WE continue our remarks upon this subject, with the hope of paving the way for the more general cultivation of improved varieties. We expect, by another season, to obtain more information respecting many new kinds which have originated in Britain and France, and which we have seen named in the catalogues of seedsmen; we are well aware that some which prove valuable in the mild climate of these countries are worthless, or scarcely worth growing here. But our seedsmen are enterprising, and we shall expect to see every thing new introduced; we shall therefore mention such as are said to be valuable, that those horticulturists who are ever doing good in the cause of gardening, and who with praiseworthy zeal spare neither time nor expense to ascertain the worth of any new variety of vegetable or fruit, may give them a trial; and if they find them to possess the merits which have recommended them to notice, to urge their general cultivation. We shall endeavor ourselves to prove all the kinds in our power, and the results we shall speedily lay before our readers.

A great variety of names of cabbages and lettuces are to be found in the seedsmen's catalogues, but many of them are synonymous; and in some instances, where twenty or thirty sorts are mentioned, not more than half are really different. We hope the London Horticultural Society will continue to arrange, classify and correct the nomenclature of all the most useful culinary vegetables; and none need it more than the lettuces. They might be put into groups, and these groups divided into sections, something in the following manner:—Common lettuces, first those with curled, and second those with smooth leaves, without heads; Cabbage lettuces, first white cabbage lettuces, and second green cabbage lettuces; Coss or ice lettuces, first white cosses, and second green cosses. This is only an idea of the moment, for a method of grouping them together, and may be altered, improved or discarded for some other. A similar mode of classification might be adopted with cabbages. But we proceed to the enumeration of the varieties.

**LETTUCES.**—Many new varieties are named in some catalogues, but the qualities we are not informed of; they are stated, however, to be excellent. The following are some of them:—Naples cabbage, Royal cabbage, Meterelle cabbage, Grand Admirable, Versailles, Turkish and Red Chartreuse: we should prefer to give these a trial before we recommend them to general cultivation, for fear they should prove synonymous with older



sorts. There are in cultivation for the market in the vicinity of Boston only four or five kinds, and, we presume, though we are not able to state, not many more in the vicinity of New York or Philadelphia. These are the early curled Silesia, Tennis Ball, Royal Cape, Hardy Green, and the Ice or common coss; but we have seen catalogues with upwards of *forty* varieties enumerated. We certainly do not believe that near all these are distinct, and if they were, they cannot possess individual merit enough for the cultivator to put himself to the trouble of growing the whole number. This innumerable mass of names only tends to create confusion, without being of any permanent benefit. The coss lettuces are not grown to any extent in this country: whether it is owing to the peculiar climate, or from ignorance of the mode of managing the plants, we are unable to say: we have never seen any of very great excellence, though their cultivation was attended with much care, and we are inclined to believe it is from the former cause: our warm and dry summers induce a rapid growth, and the plants run up to seed before their heads are matured.

*Imperial.*—Under this name we have cultivated a variety which deserves to be extensively grown; the heads are large and solid, and the plants are not so apt to run up to seed as some other sorts. It approximates somewhat to the kind cultivated as the Royal Cape, but is superior to that. We can highly recommend it.

*Early Dwarf Head.*—This is another sort which we have found to be worthy of general cultivation for an early crop. The heads are small but very solid, and in this respect it has the advantage of the old kind known as the Tennis ball; it is, also, a more delicate looking lettuce than the latter, and its heads attain perfection at quite as early a period.

The varieties of lettuces first named in this article we hope to give some account of at the end of the season. Those of our friends who know any thing of their merits will confer a favor by communicating such information to us at an early period.

**CABBAGES.**—The early Dutch, early York, Drumhead, Savoy and Red Dutch varieties, have been so long almost exclusively cultivated, and the names have become so familiar to market gardeners, that it is almost impossible to persuade them to try any new sort. As long as the purchasers of these vegetables are satisfied with such as are brought to market, it is of little consequence to the raiser whether they are an old or new variety; they *sell* well, and that is sufficient: they do not take into consideration the great difference in the production of a crop from a given quantity of land; and rarely deem it of sufficient importance even to try the experiment, to see what variety is the most profitable in this respect. With vegetables, as with fruits, there must be a demand for superior sorts before the mar-

ket gardeners will make exertions to raise such. Until the Urbaniste, Passe Colmar, and other such pears were known, the Messire Jean was a saleable fruit; but the latter is now thought but little better than an Iron pear: so it will be with vegetables: the merits of new kinds must be made known, and the zealous and industrious marketman will cultivate a few of the more choice with the common, until the former will be alone demanded, and the latter be thrown aside as unworthy of growth.

*Vanack.*—It is hardly necessary for us to again recommend this to the notice of our readers; we have already stated its qualities and urged its general growth, and we are glad in being able to state that our efforts have not been made in vain. We first introduced this variety into the vicinity of Boston, and it has been so well liked that several of the principal market-gardeners have begun to cultivate it extensively. It is very early, with fine dark green leaves, and forms heads remarkably solid, and yet tender. It is an old variety in England, and was cultivated as long ago as 1776: no better proof of its merits is needed than the fact that it is still grown under the same name. It should be sown at the same time as the Early York, and the heads attain a good size nearly as soon as this sort.

*Large Pancalier Green Savoy of Tours.*—This is a fine variety of the Savoy, and deserving of extensive cultivation for winter use. During the season of 1834 we raised several plants, but the early setting in of winter prevented their attaining their full size; they were, however, sufficiently grown to warrant us in recommending this new kind as very superior.

As sorts worthy of trial we would mention the early Dwarf Russian, the Dwarf Portugal and the Hounslow cabbage: the two first are recommended by Mr. Gordon of the London Horticultural Society's garden, and the latter is said to be a new and fine sort, lately raised, and the seed of which is not yet in the catalogues of the English seedsmen. It can probably be procured another season.

In addition to the above we find the following in some catalogues:—Early Royal Dwarf, (producing two crops in a season,) and Monstrous French Savoy, both of which are strongly recommended.

**BROCOLIS.**—These are not yet cultivated to much extent; but they are liked more now than formerly, and we have no doubt will soon be in great demand: they are easier grown than cauliflowers, and are equally as good when cooked. The best sort is said to be the new Russian dwarf. The purple Cape answers well for a general crop.

**CELERY.**—The old white sort continues to be generally grown; several new sorts have been introduced, but they have not been grown only in private gardens. This fine vegetable is

not yet produced in much perfection; the roots are small, and, generally, composed of a mass of weak, spindling and tasteless shoots, instead of large strong ones, brittle, tender, and of fine flavor. The old system of growing this estimable vegetable, in trenches, is now exploded, and the more rational mode of treating it like other plants is beginning to be practised here. We hope certainly, for the credit of what knowledge we possess in gardening, to see celery grown in greater perfection, whether old or new sorts.'

*The Italian and Kentucky* varieties are stated to be the best; we have never tried these, and the names are new to us; those which we can recommend are the *Giant Red and White*, both excellent: they may be grown to the weight of eight or ten pounds a root in a good soil and with proper care.

**RADISHES.**—Some new varieties have been lately produced, which are highly esteemed, and are recommended as superior to the old sorts; they are mostly of French origin. The following variety is stated to possess excellent qualities:—

*The Radis rose demi-longue.*—It is of a fine bright scarlet color, and is intermediate between the long and round rooted kinds. It is stated to be very early, handsome in appearance, of excellent quality, and to remain longer in perfection than any of the long rooted varieties: it is well adapted for growing in frames, and, probably, for early forcing.

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**ART. IV. *On the Nature of the varieties of Engrafted Fruit Trees.*** By the late MR. BUCKNAL.

[WE present to our readers the following article, in compliance with the request of several of our pomological friends. It was originally written by the late Mr. Bucknal, a friend of Mr. Knight, for, and published in, the *Transactions of the Society of Arts*, (Vol. xx,) and was subsequently copied into the *Domestic Encyclopædia*, by Dr. Willich. This work was republished in this country, (in 1804,) with additions, by Dr. Isaac Mease, of Philadelphia. It is a valuable essay, and as the subject is one which is now engrossing the attention of horticulturists in this country, no apology is needed from us for its publication, in our Magazine, at this time. The *Domestic Encyclopædia* is a work of five octavo volumes, and the practical horti-

culturist or the amateur who is desirous of seeing it, would have to purchase the whole work for the sake of this article. The early decay of many of our fine pears, in peculiar situations, has induced some writers to term them as "outcasts;" and have assigned as the reason, the decay of the parent plant, and, consequently, according to the theory of Mr. Knight and of Mr. Bucknal, as contained in the following essay, the decline of the grafted trees must be looked upon as certain: the fruitful appearance, however, of many of the sorts in the middle states of this country, which have been long since condemned as unworthy of cultivation, would seem to be sufficient evidence to controvert this fact; but Mr. Knight has stated that a fruit will be produced in perfection for some time, in a warm latitude, after it has ceased to do so in a more northern one. Whether this theory is true in all its parts we shall not now pretend to say: we have already extended these remarks beyond our limits, but at a future time shall resume them, at some length.]

Some friends have requested that I would introduce another paper on the nature of the valuable varieties of engrafted fruits, as they are of opinion that the Essay in the seventeenth volume of the *Transactions of the Society* is not sufficiently extended for a subject so important to the fruit growers, and those interested in the productions of fruits. As a proof of my willingness to make the orchardist as perfect as I can, I beg you to present my compliments to the Society, with the following elucidations.

This is a subject in rural economy which ought to be much better understood than it is, in order to enable the planters to judge of the sorts proper to be planted, either as an article of pleasure, profit, or recreation; as much of the credit of the plantation must arise from judiciously choosing trees of the best, new, or middle-aged sorts, and not of the old worn-out varieties, which latter cannot, in the planting of orchards in common situations, ever form *valuable trees*, and must end in the disappointment of the planter.

Engrafted fruits, I have before said, and I now repeat, are not permanent. Every one of the least reflection must see that there is an essential difference between the power and energy of a seedling plant, and the tree which is to be raised from cuttings or elongations. The seedling is endowed with the energies of nature, while the graft or scion is nothing more than a regular elongation, carried perhaps through the several repeatings of the same variety; whereas the seed, from having been placed in the earth, germinates and becomes a new plant, wherever nature permits like to produce like in vegetation; as in the oak, beech, and other mast-bearing trees. These latter trees, from each passing through the state of seedlings, are perfectly continued, and endowed with the functions of forming perfect seeds for raising other plants by evolution, to the continuance of the like species.

This is not the case with engrafted fruits. They are doomed by nature to continue for a time, and then gradually decline, till at last the variety is totally lost, and soon forgotten, unless recorded by tradition, or in old publications.

Reason, with which Providence has most bountifully blessed some of our species, has enabled us, when we find a superior variety, to engraft it on a wilding stock, or to raise plants from layers and cuttings, or

even to raise up the roots, and thus to multiply our sources of comfort and pleasure. This, however, does not imply that the multiplication of the same variety, for it is no more, should last forever, unless the species will naturally arise from seed.

Nature, in her teaching, speaks in very intelligible language, which language is conveyed by experience and observation. Thus we see that among promiscuous seeds of fruits of the same sort, one or more may arise, whose fruits shall be found to possess a value far superior to the rest in many distinguishable properties. From experience, also, we have obtained the power, by engrafting, of increasing the number of this newly acquired tree, can change its country, give it to a friend, send it beyond the seas, or fill a kingdom with that fruit, if the natives are disposed so to do. Thus we seem to have a kind of creative power in our own hands.

From the attention lately paid to the culture of engrafted fruits, I hope we are now enabled to continue a supposed happily acquired tree, when we can find it, for a much longer duration than if such variety had been left in the state of unassisted nature; perhaps I may say for a duration as long again, or something more. After these sanguine expectations, I may reasonably be asked, to what does all this amount? For here there is no direct permanency—and why? The *why* is very obvious—because the kernels within the fruit, which are the seed of the plants for forming the next generation of trees, will not produce their like. I allow they may do so accidentally; but nothing more can be depended on.

For example, suppose we take ten kernels or pips of any apple raised on an engrafted stock; sow them, and they will produce ten different varieties, no two of which will be alike; nor will either of them closely resemble the fruit from whence the seeds were collected. The leaves also of those trees raised from the same primogenious or parent stock, will not *actually* be a copy of the leaves of any one of the varieties or family, to which each is connected by a vegetable consanguinity. I intentionally used the word *actually*, because a resemblance may be found, though not much of that is to be expected.

I beg that what has been last mentioned may not be taken as a discouragement to attempts for raising new varieties. I was obliged to speak very strongly, in order to place the culture upon its true foundation. I think it need not be observed, that there is no acquiring a new variety, but through the means of a seedling plant; and therefore whoever wishes to succeed must attempt it that way, or wait till others in their plantations may more fortunately produce it.

In choosing the seeds, that apple is most likely to produce the clearest and finest plants, whose kernels are firm, large, and well ripened. The size of the fruit is not to be regarded; for large apples do not always ripen their fruit well, or rather for cider the small fruits are generally preferred for making the strongest, highest flavored liquor. And from what I have been able to collect in the cider countries, it is there the opinion, that an apple something above the improved crab promises the best success. This advantage also attends the practice: if there are no valuable apples raised from that attempt, these wildings will make excellent stocks to engraft upon.

Gentlemen who actually employ themselves in attempting to acquire new varieties, should remember that they ought to select all the sets from the bed of apple-quick, whose appearance is in the least degree promising, and plant them together, at such a distance as to allow each to produce its fruit, which will happen in about twelve, fifteen, or eighteen years. My friend, Mr. Knight, who undoubtedly is the first in actual exertions for procuring these happily acquired new varieties, has had two plants bear fruit at six years old, and one at five. The

cider countries have offered several premiums for procuring new varieties, and some with good effect. Premiums have been given both to Mr. Knight and Mr. Alban.

When the new variety is to be raised from a valuable *admired* apple, I should recommend the placing these seeds in a garden pot, filled with mould from an old melon-bed; carrying the pot into a retired situation near the water, and giving attention to run the plants to as large a size as is convenient within eighteen months. With this view the pot should be placed in the green-house the first winter; and when the plants are afterwards to be set out in the spots, they should not be placed under the drip of trees, or much exposed to the winds.

Two instances have been mentioned, the improved crab and most admired apple; but prudence says, try all sorts, and something probably will arise; and the process is attended with little trouble or expense to a person who constantly resides in the country: yet, after all this scientific care, the apple may want flavor, and be in other respects nothing better than a common wilding.

It is an undoubted fact, and worthy of observation, that all the different trees of the same variety have a wonderful tendency to similarity of appearance among themselves; and that the parent stock, and all engrafted from it, have a far greater resemblance to each other, than can be found in any part of the animal creation; and this habit does not vary to any extent of age.

As an encouragement in attempting to increase the number of new valuable fruits, we can prove that the golden pippin is native English. The red-streak, a seedling of Herefordshire, if not raised, yet was first brought into notice by Lord Scudamore, and was for a long time called *Scudamore's Crab*. The *Stire Apple* was accidentally raised in the forest of Dean in Gloucestershire, and took the name of *Forest Stire*. The cider made from this apple was the strongest the country ever produced, according to any living record. The Haglo-crab, the best cider fruit now remaining, was discovered in the parish of Ecloe, on the banks of the Severn; and about sixty or seventy years ago, many scions were taken from this tree by Mr. Bellamy, and engrafted on seedling stocks about Ross. These are now grown old, and, to ascertain the age of the variety, I went with Charles Edwin, Esq., to Ecloes, in hopes of seeing the primogenious of this family. The proprietor of the estate acquainted Mr. Edwin that it had ceased to bear, years ago, and was cut down. Those at Ross are but poor bearers now; and I should suppose the variety must be one hundred and forty years old, though Marshal, who wrote in the year 1786, mentions these trees were prolific, and he supposes the sort to be about eighty years old; but from present experience it must be much more. The Tinton Squash-pear is of Gloucestershire; the Barland and Old-field were near Ledbury, Herefordshire. The two last pears clearly bear the names of the two fields where they were raised. The Barland fell about six years ago, visibly from weight and longevity, which was supposed to have been about two hundred years. There have been many other names of estimation handed down to us, though the realities are now totally worn out, and have ceased to exist. Can any better proof be desired, that engrafted fruits are not permanent, than the regret we feel for the loss of these old valuable fruits?

To make my paper as short as convenient, I have dwelt only on the apple and pear: yet all the engrafted fruits are under the same predicament of the seed not producing its like, and the offspring in time falling into a nothingness of growth and bearing, though that space of time must certainly depend on the natural longevity and hardness of the sort, soil, position, care, &c. All these are more fully expressed in the

papers published in the different volumes of the transactions of this Society, and the two volumes of the *Orchardist*, wherein the whole system is extended, to form a rational culture for the management of standard fruits.

It should be remembered, that as I am now alluding to the state of actual permanency, fifty years are to be accounted as nothing; and as often as we come to that point we are compelled to resort to our first assertion, "That engrafted fruits are not permanent, they being continued from elongations, and not raised as a repetition of seeds." This is the only rational way as yet introduced of accounting for the loss of the valuable old varieties of fruits. Should a better system be introduced, I shall readily adopt it; but this sufficiently answers the purposes of the planter.

Some years ago, from due investigation and thorough conviction, I propagated this principle, and it was published in the seventeenth volume of the Society's Transactions, in the following words: "All the grafts taken from this first tree, or parent stock, or any of the descendants, will for some generations thrive; but when this first stock shall, by mere dint of old age, fall into actual decay, a nihility of vegetation, the descendants, however young, or in whatever situation they may be, will gradually decline; and, from that time, it would be imprudent, in point of profit, to attempt propagating that variety from any of them. This is the dogma which must be received. I do not expect a direct assent, neither do I wish it, for it should be taken with much reserve; but it is undoubtedly true." These considerations should stimulate us in searching after new varieties, equal, or perhaps superior, to those of which we regret the loss.

Observe, that from the time the kernel germinates for apple-quick, should the plant be disposed to form a valuable variety, there will appear a regular progressive change or improvement, in the organization of the leaves, until that variety has stood, and grown sufficient to blossom and come into full bearing; that is, from the state of infancy to maturity; and it is this and other circumstances, by which the inquisitive eye is enabled to form the selection among those appearing likely to become valuable fruits. But from that time the new variety, or selected plant, compared with all the engraftments which may be taken from it, or any of them, these shall shew a most undeviating sameness among themselves.

It is readily allowed, that the different varieties of fruits are easily distinguished from each other by many particulars; not only respecting their general fertility, and the form, size, shape and flavor of the fruit, but also the manner of the growth of the tree, the thickness and proportion of the twigs, their shooting from their parent stem, the form, color, and consistence of the leaf, and many other circumstances, by which the variety can be identified; and were it possible to engraft each variety upon the same stock, they would still retain their discriminating qualities, with the most undeviating certainty.

The proper conclusion to be drawn from the statement in the last paragraph, is this—that were any one to put the thought in practice on a full-grown hardy or crab stock, it would produce an excellent proof that engrafted fruits are not permanent. For if twenty different varieties were placed together, so that each might receive its nurture from the same stem, they would gradually die off in actual succession, according to the age or state of health of the respective variety, at the time the scions were placed in the stock; and a discriminating eye, used to this business, would nearly be able to foretell the order in which each scion would actually decline.—Should it also happen that two or three suckers from the wilding stock

had been permitted to grow among the *twenty grafts*, such suckers or wilding shoots will continue, and make a tree after all the rest are gone. A further consequence would result from the experiment: among such a number of varieties, each of the free growers would starve the delicate, and drive them out of existence only so much the sooner. It must be observed that this supposed stem is the foster-parent to the twenty scions, and real parent to the suckers: and those the least conversant with engrafted fruits know the advantage acquired from this circumstance. And here it is worth while remarking, that a Gascoyne, or wild cherry, will grow to twice the size that ever an engrafted cherry did.

By an experiment we have had in hand for five years, it will appear that the roots and stem of a large tree, after the first set of scions are exhausted or worn out, may carry another set for many years; and we suspect a third set, provided the engrafting is properly done, and the engrafter chooses a new variety. Now the Ripston pippin, of Yorkshire, is the favorite, as being a free grower and good bearer, with fine fruit. This, however, may be certainly depended on, that when a new apple is raised from seed, if a scion were placed in a retired situation, and constantly cut down, as a stool in a copse-wood, and the apple never suffered to fulfil the intentions of nature in bearing fruit, the practitioners of the following ages may procure scions from that stool, to continue the variety much longer. Hence, though I have written as much as is in my power against permanency, yet I have taken some pains to assure the planters, that forecast, selection, pruning, cleanliness and care, will make the orchards turn to more profit for the rising generations, than what they have done for the last hundred years. To place the nature of varieties in its true light, for the information of the public, I must maintain that the different varieties of the apple will, after a certain time, decline and actually die away, and each variety, or all of the same stem or family, will lose their existence in vegetation; and yet it is a known fact, and mentioned in the seventeenth volume of the *Transactions*, that after the debility of age has actually taken possession of any variety, it will yet thrive by being placed against a southern wall, and treated as a wall fruit. Who, however, can afford to raise cider at that expense, except as matter of curiosity, to prove, that when the vital principle in vegetation is nearly exhausted, a superior care and warmth will still keep the variety in existence some time longer?

It should be understood that the external air of Britain is rather too cold for the delicate fruits; which is the reason why, in the *Orchardist*, I lay such a stress on procuring *warmth* for the trees, by *draining*, *shelter* and *manure*. It would be now lost time to attempt to recover the old varieties as an article of profit.

If I have not expressed myself, in this *Essay on the Nature of Varieties*, with so much clearness and conviction as might have been expected, it should be considered, that it is an abstruse subject, very little understood, and requiring at first some degree of *faith*, *observation* and *perseverance*. The prejudices of mankind revolt against it. They are not disposed to allow the distinction of nature; and they imagine, that, in the act of engrafting or multiplying, they give new life; whereas it is only continuing the existence of the same tree, stick, or bud. Observe what I said before: the seed of the apple, when placed in the earth, germinates and unfolds itself into a new plant, which successively passes through the stages of infancy, maturity, and decay, like its predecessors. I might say, all created nature is similar in this respect; though, from the circumstance that varieties are much longer lived than man, the plants have appeared to be possessed of eternal powers of duration:



nothing sublunary, however, which possesses either animal or vegetable life, is exempt from age and death.

Within the last twenty years I have travelled many hundred miles, and conversed with the most intelligent men in each county; and I now want to convince mankind, for no other reason than because it is their interest so to believe, that there is in creation an order of beings (engrafted fruits) so formed, that we have the power of multiplying a single variety, to whatever number of trees we please; that the first set arises from a small seed; that the next and descendant sets are propagated by engraftings, or from cuttings, layers, &c.; and although these trees may amount to millions, yet, on the death of the primogenious or parent stock, merely from old age, or nihility of growth, each individual shall decline, in whatever country they may be, or however endowed with youth and health. I say they shall gradually begin to decline; and in the course of time or of centuries, to those who would prefer that expression, the *whole variety* will scarcely have a single tree remaining to show what the fruit was. Let those who are not disposed to assent to the statement, ask themselves what is become of the old lost varieties? Did they die, or did wicked men maliciously cut them up?

I, who am firmly convinced of the truth of what I have advanced on this subject, have no doubt but that the same would happen by engrafting on the oak or beech, if the mast raised from the engrafted tree did not produce the like; for there the question turns.

Is it not known that the woodman, in setting out his sapling oaks, always selects new seedling plants, and never continues one upon an old stool; and that if he should so blunder, that tree, from the stool, will neither have freedom of growth, nor the size or firmness of timber, equal to the new-raised plant?

I wish I could persuade my friends, that, with the same attention with which the woodman acts, the planter is to raise his orchard from the young fruits which thrive in the neighborhood, or are in health and full bearing in the country whence they are to be brought.

The fruit grower should look to selection, cleanliness and care. To me it is a circumstance perfectly indifferent, whether he is to use Mr. Forsyth's composition, Mr. Bulingham's boiled linseed oil, or my medication. I only maintain that the wounded parts of trees want something to destroy the insects and vermin, and heal the wood, from which the trees are kept in health.

Let those who are blessed with fruit plantations attend to their preservation, and not leave them to the state of unassisted nature.

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#### ART. V. *On the Cultivation of the Hydrangea, (H. hortensis.)* By the CONDUCTOR.

THIS very showy and highly ornamental plant, though it has long been cultivated, is far from being very common. Indeed fine specimens are not often seen, and we may infer that the want of better information in regard to their cultivation is one

cause why they are not grown to greater perfection. The peculiar soil which they delight to grow in, and in which alone they ever flourish successfully, is not always to be conveniently found; recourse is consequently had to the common earth of the garden, in which they grow tolerably well for a little while, but finally dwindle away and die. Persons unacquainted with the plants, at all, are apt to kill them immediately; having a desire to enrich the soil, manure is added, which is sure death to them. The following few hints may be therefore of some service to our readers.

Hydrangeas are cultivated by layers and by cuttings; the former make the largest plants in the shortest period of time, but the latter method is the most convenient, and the plants are handsomer shaped. To propagate by layers, all that is necessary is to plunge the plant in the garden, or turn it out into the soil, and place round it some suitable earth; then make a slit in the shoots, longitudinally through a bud, and peg them into the soil, covering them over an inch or two in depth. The operation may be done either before or after the plants expand their blossoms; in either case they will generally root very easily. To propagate the plants by cuttings, the shoots should be taken off in the spring, about a fortnight previous to the breaking of the buds, just as they begin to swell, or in the fall, two or three weeks after they have finished their summer's growth, and the wood begins to harden. The former season may be chosen to procure flowering plants of a small size, but the latter should be preferred where the object is only to get plants, without any regard to their early blooming. Cultivators who put in cuttings in the spring go over the old plants and select such shoots, as, from their swelled appearance and firm feeling, they judge will throw out flower-buds; these are cut off below a bud, with from one to three inches of the wood, and are inserted singly in small pots, and plunged in a gentle bottom heat, and shaded from the rays of the hot sun; they soon emit roots, and they are then shifted into the next size pots, (No. 2,) in which they generally produce a fine large umbel of flowers. Plants thus treated have a very pretty appearance, the flowers sometimes being three times the size of the pots they are growing in. This mode may be adopted with amateurs, but is attended with more care than that of taking off the cuttings in the autumn.

After the summer shoots have acquired some solidity, and begin to assume a slightly brownish tinge, cut off the ends of as many as there are plants wanted; let them be about four inches long, and contain six leaves; be careful that they are cut across, directly under a bud; trim off the two lower leaves, and insert each cutting in a No. 1 pot. Place them in a frame or against a north wall, where they will be shaded from the sun for a month;

by the end of this period they will have made sufficient roots to be removed to a warmer situation, where they may remain until severe frosty weather, when they must be taken into the greenhouse, frame, or, in want of either of these, the cellar. The soil in either of these modes should be composed of peat or leaf mould, with the addition of about one third sand. Out of twenty-five cuttings, the most we ever put in at any one time, not one failed to grow treated in this manner.

The after management of the plants is very simple; the following season they should be shifted into No. 2 pots, and, as they continue to grow, they will require larger ones, until they reach such a size as to need large tubs. The soil should be peat, from low situations, or bog earth, or, if these cannot be procured, leaf mould. Give a good drainage to the pots, as stagnant water is injurious to the roots. When the plants come into bloom, keep them well saturated with water, and let them stand in situations where the sun shines only a few hours in the morning. The proper season for potting is early in March, just before the plants begin to grow.

Much has been written respecting the cause of the flowers sometimes opening blue and at others red, and various modes have been recommended to make the plants produce those of the latter color. Bog earth, loam, and saturating the plants with water, in which iron filings have been steeped, have each been tried, to produce the effect, and each have answered as well as failed to do so. That it is owing to the presence of oxide of iron in the soil we have no doubt; and when bog earth or loam can be procured of the right kind, the color will be changed. This we know to be the fact. A few years since we tried the experiment upon a plant; it was an old one, and was separated so as to make two; one was planted in bog earth, and the other in a hazel colored loam; the flowers of the one in the bog earth were red, and those on the other, in loam, were of a more intense blue than any we have ever seen since. Cuttings that we have raised and planted in the same loam have flowered blue. There are, perhaps, few soils that possess this property, but when one is found a stock of it should be secured, if blue flowers are desired; the plants do not, however, grow so vigorously as in bog earth. It is a good plan to grow the plants a year or two in loam, and then shift them into bog earth; but it must be remembered that the latter soil will sometimes produce blue flowers.

Hydrangeas should be in every garden: the long period which their flowers remain in perfection, and the care with which they are grown, should entitle them to the notice of every lover of flowers.

[This article was written to appear last autumn, but was laid aside to accommodate our correspondents.]

ART. V. *Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some account of those which it would be desirable to introduce into our Gardens.*

*Edwards's Botanical Register*, or Ornamental Flower Garden and Shrubbery. Each number containing eight figures of Plants and Shrubs. In monthly numbers; 4s. colored, 3s. plain. Edited by John Lindley, Ph. D., F. R. S., L. S., and G. S. Professor of Botany in the University of London.

*Curtis's Botanical Magazine*, or Flower Garden Displayed, containing eight plates. In monthly numbers; 3s. 6d. colored, 3s. plain. Edited by Sir W. J. Hooker, L.L. D., F. R. A., and L. S., Regius Professor of Botany in the University of Glasgow.

*Notes relating to Floriculture.*—M. Persoon, a celebrated French Botanist, lately died at a very advanced age, at Paris.

*Mr. Douglass.*—In the *Gardener's Magazine*, for November, a sketch of the life of this distinguished botanist is given, accompanied with his portrait. We hope to be able to insert this account in a future number, and, if possible, to have a copy of the above portrait taken for our Magazine. A list of all the hardy plants introduced by Mr. Douglas is also appended to the above notice of his life.

Owing to circumstances beyond our control, our foreign botanical and floricultural periodicals have not reached us for several months. We are consequently constrained to omit our usual notices of new and interesting plants, which not only keep ourselves, but our botanical, and, more particularly, floricultural readers, who are always looking out for new and rare plants, wholly uninformed respecting any newly originated varieties, of lately introduced species. When they do reach us, however, we shall give an account of every thing interesting, in a condensed form, which has appeared since our last notices of the works at the head of this article. This we are in hopes will be ere long, and in the meantime we would request our floricultural friends who are eager for such information to be patient for a few weeks.

#### DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

##### *Ternstroemiaceæ.*

In this order the camellia, magnificent both in foliage and flowers, is now ornamenting the green-houses and conservatories with a profusion of its splendid blossoms. Without the addi-

tion of this fine tribe, how barren would be these structures during the inclement weather of our long and tedious winters! Even the type of the genus, the old single red, is a welcome visiter at this season. It is but a few years since this species was considered as rare in our gardens; and whoever possessed a small plant was thought to be the owner of a great treasure in the floral department. But the great progress floriculture has lately made has been the means of producing from this, and others of the tribe, a great number of varieties of diversified colors: of the value of cross fertilization in raising new varieties of flowers there can be no question; and in no class of plants has such aid been made use of with better effect: already the varieties number several hundred, and we know of no limit to the production of new ones.

At no time, in the vicinity of Boston, has there been a greater number of splendid varieties in bloom than is now to be found, in the various amateur and nursery collections, in and around this city. Perhaps not even many of the English nurserymen possess so many varieties as are to be found here: and although they are all not equally beautiful, still, where there is plenty of room, they are sufficiently so to demand a place with the finer kinds. It is not to be supposed that the amateur who has but a limited space to devote to flowers will fill it with such as are not truly splendid: it would, indeed, be showing a want of taste to possess merely a variety in this case: those alone which combine both elegance of foliage and flowers, (and there is a sufficient number of these to stock a large green-house,) should be chosen; but those who have sufficient room should not be accused of a want of taste, or a desire only to show a long list of names, for cultivating every new plant that comes into their possession. Were we to be confined to one plant, we would sooner prefer some of the single ones, with their large, glossy, dark green foliage and broad expanded flowers, filled with their rich yellow stamens, to some of the double ones, whose sole beauty is in the multiplicity of their petals, without any symmetry of form.

As the cultivation of the camellia is increasing very rapidly, we have annexed lists of several of the varieties that will be in flower the present month in some of the gardens in this vicinity, that amateurs and gentlemen, as well as lovers of this fine tribe, may have an opportunity of seeing the various sorts in bloom, and thus form some estimate of their beauty.

*Amateur Garden of Mr. Sweetser.*—In this collection about fifty varieties will be in flower. Among those in bloom now (Jan. 16th,) which are splendid, are *C. j. Sweetii*, *oxoniensis*, *pulcherrima*, *Weimaria* and *speciosa*; the first is a gorgeous flower, nearly the color of *Chandleri*, but opens more in the way of a provins rose; the outer petals gradually unfolding, leav-

ing the centre ones like an unexpanded bud, until they all open at once: the inner ones are marbled or splashed with white. This is not the *Sweetiana* of the English gardens, and one of the last productions of that late excellent practical botanist, in honor of whom it was named; but is probably a French seedling, as the plant was received from France. We have previously spoken of the beauty of the others, except *oxoniensis*; this is also a French variety, but deserves to be ranked with the fine varieties produced by the Messrs. Chandler, of Vauxhall, and figured in their splendid work; the color is a lively pink, the flower loose in its formation, with two or three rows of large symmetrically formed petals, and a few small inner ones which are delicately pencilled with white; the flowers remain in perfection a great length of time. A plant called *gigantea* shows a promising bud; we have never seen one so large, except upon the original plant of Fløyii, in the collection of the grower of this superb sort; it will undoubtedly be a very desirable variety. Many others are in bloom, but their elegance can only be appreciated by seeing the flowers. The annexed list of varieties will be in flower here during this month:—

C. j. *Aitonia* (*single*)

álba pléna  
Alnut's superb  
atroviolácea  
*aucubafolia*  
blánda  
Calvert nóva  
Chándleri  
coccínea  
conspícua  
crassifolia  
De Candólle's  
Derbiána  
Dérn's  
diversifolia  
Dorsétti's  
flórida  
fimbriáta  
gigánteá  
glória béglica  
Goussónt's  
Halésia  
Herbérts  
Hosáck's  
Hóvea  
imbricáta

Imperatrice du Brésil

incarnáta  
Lindbriáta  
Líndley's  
marmoráta  
myrtifolia  
oxoniénsis  
*Pæoniflora* ròsea  
papaverácea (*single*)  
paradóxica (*single*)  
pulchérriima  
Reevèss's nóva  
Rivín's  
ròsea  
rosæflóra  
ròsea cárnea (*single*)  
Róss's  
Single white striped  
specídea  
Sweet's  
Travèrs's mutábilis  
variegáta  
Wallnèr's  
Weimària

C. *maliflora*

*Hawthorn Grove, Mr. Wilder.*—The show of camellias here has been extremely splendid this season; from one to three hundred flowers have been expanded during the past month, and, although the height of their bloom is over, there will be specimens of nearly all the varieties, in the collection, in flower, this month. Among those new and elegant which have opened

their blossoms here for the first time in the vicinity of Boston, and probably in the country, are *conchiflora alba*, and *c. nova*, *delicta*, and *fasicularis*: the first is a lovely white, and though not more than a semi-double flower, the shell-like formation of the petals, and their pearly whiteness, are properties which place it among the most desirable sorts; *conchiflora nova* is similar to the *conchiflora*, but of a deeper and richer color: *delicta*, though in the style of *insignis*, is a most exquisite variety; *fasicularis* is a small but pretty kind, with red and white mottled flowers: many other new ones have expanded, but these were all that were beautiful that we observed at a late visit. Among others which promise well we noticed *Triphosa* and *Donclaeri*, two, reported to be, splendid varieties; the first is of a white or cream color, the form as good as the old double white; a bud which was just beginning to open, was very large; the latter has been noticed in our last vol. p. 293. Of the varieties which have flowered before, *Dorsétti*, *oxoniensis*, *Rossi*, *Rosa sinensis*, *Clivedna*, *punctata*, *eclipsis*, *Woodsi*, *althææflora*, *imbricata*, &c.; there were fine specimens of blooms. Greville's red, one of the tree camellias, was magnificent with upwards of a dozen flowers expanded, many of which measured five inches in diameter, and had more the appearance of *pæonies* than camellias: no idea can be formed of the beauty of this sort until the plants acquired a large size: indeed this observation may be applied to all the varieties. The large plants of the double white were full of flowers; *coccinea* or *splendens* has sported so as scarcely to be recognized; some of the blooms are as much marbled with white as, and in some instances more than, the *variegata*; it is a very free flowerer, and is invaluable in a collection: *imbricata* has here opened several flowers, which are all crimson; in our collection they are elegantly striped with white: *Chandleri* has sported into all shades and shapes; some all red, others nearly white, and a third with colors finely marbled together. The following list includes all the varieties that will bloom in February; but as many of the plants are small, the character of the flowers cannot be fully ascertained.

C. j. *Aitonia (single)*

*alba plena*  
 — *simplici*  
*althææflora*  
*amplissima*  
*anemoneflora*  
 — *alba*  
 — *rosea*  
 — *rubra*  
 — *striata*  
*antiverbiensis*  
*ardens superba*  
*atropurpurea nova*

*atrorubens*  
*atroviolacea*  
*aucubæfolia*  
*Banksia*  
*Baumanniana*  
*Berleziæna*  
*bilobata*  
*bruxilliensis*  
*Calvert nova*  
*cerasina*  
*Chandleri*  
*Charles Auguste*  
*Charlemagne*

Clintònia  
 Cliveiàna  
 coccinea  
 Colvillii  
 Comète nova  
 compacta  
 Comptoniàna  
 concata  
 conchiflòra  
 — alba  
 — nova  
 concinna  
 conspicua  
 coronata  
 corallina  
 crassifolia  
 crassinervis  
 decora  
 De Candollei  
 delicatissima  
 Derbiàna  
 Dérui  
 Donclaeri  
 Dorsetti  
 eclipsis  
 Egertonia  
 electa  
 elegans *Chandler*  
 elegans *French Cat.*  
 Elphinstonia  
 excelsa  
 eximia  
 expansa  
 fascicularis  
 fimbriata  
 flavescens  
 florida  
 Fløysi  
 French white  
 fulgens (*single*)  
 glòria belgica  
 — mundi  
 grandissima  
 Graya nova  
 Halèsta  
 Harrison's No. 8  
 helyòla  
 Henriette (belle)  
 heterophylla  
 hexangularis  
 Hogg's spectabile  
 Hosacki  
 ignescens  
 imbricata  
 incarnata  
 insignis rubra  
 intermedia  
 Johnsoni

Kéntii  
 Lankmansi  
 limbria  
 Lindleyi  
 lucida  
 Mackayana  
 Mestèri  
 multiflora  
 mutabilis Cassorèti  
 myrtifolia  
 oxoniensis  
 Pæoniflora ròsea  
 pallida  
 Palmèrii alba  
 papaveracea (*single*)  
 Parmentèria grandiflora  
 — nivea  
 parviflora  
 pensillata  
 platipétala  
 plumaria  
*Pomponia*  
 — semiplena  
 prègnans  
 princeps  
 punctata  
 — simplici  
 Reevesi  
 Reevesi nova China?  
 Rivini  
 Roi des Pays Bas  
 rosa mundi  
 rosacea  
 rosæflora  
 Rosalie (belle)  
 ròsea plena  
 Róssi  
 Rossiàna superba  
 rubra plena  
 rubricaulis  
 — variegata  
 rubicunda violacea  
 Sabini  
 scintillans  
 Single white striped  
 sinica  
 Simsii  
 spatulata  
 speciosa  
 splendida  
 spofforthiana  
 supina  
 Thunbergia  
 Traversi mutabilis  
 Triphosa unica alba  
 triumphans  
 Vandesia superba  
 variegata



venösa  
virginea (Floy's)  
Wallnërii  
Wårdii  
Weimària  
Welbánkii

Wiltöni  
Woodsi  
C. euryoides  
maliflora  
reticulata

At our Garden a considerable number of varieties will be in flower. Among them, C. j. Colvillii, corallina, anemoneflora álba, conchiflora álba, concinna, imbricata, Chándleri, élegans, and Vandèsia supérba, will be superb specimens. The buds on Colvillii are remarkably large, and promise finer blooms than have been seen in the vicinity of Boston. The following includes nearly all the kinds which will expand in February.

C. j. álba plèna  
— simplex  
acutifolia  
Aglæ  
althææflora  
anemoneflora  
— álba  
— ròsea  
blánda  
Chándleri  
coccinea  
Cólle  
Colvillii  
colorata  
compácta  
Comptoniana  
conchiflora  
— álba  
concinna  
corallina  
coronata ròsea  
crassifolia  
crassinervis  
decòra  
dianthiflora  
eclipsis  
elécta  
élegans  
élegantissima  
excélsa  
fimbriata  
flammea  
florida  
Flóyii  
fulgens  
glòria béglica  
— múndi

gloriösa  
Goussönia  
grandiflora (single)  
helvöla  
Herbérti  
imbricata  
incarnata  
insignis  
Kew blush  
Magnoliaefolia  
marmorata  
myrtifolia  
Pæoniflora álba  
— ròsea  
Palmërii álba  
pállida  
paradoxica (single)  
Parks's striped  
Pompönia  
— plèna  
purple warratah  
Reevèsi nòva  
Roi des Pays Bas  
Ròsa sinénsis  
ròsea  
Rossiana supérba  
rùbra plèna  
rubricaulis  
sericea  
Vandèsia supérba  
variegata  
venösa  
Welbánkii  
Wiltöni  
C. Kissi  
maliflora  
reticulata

At the Botanic Garden, a seedling plant, raised by Mr. Carter, has been in bloom. It is in the style of the carnation warratah, but the outer petals are white, and the small inner ones finely striated, as in the former variety, forming a beautiful contrast.

At Messrs. Winships', Brighton, and Messrs. Masons', Charlestown, several kinds will be in flower, but mostly of the more common varieties.

Mr. Cushing is about enriching his collection by the addition of the new varieties.

In New York the collections of Messrs. Hogg and Floy are probably in their greatest splendor; we had hoped to have given a list of the varieties which would be in bloom in their gardens, but were unable to this month.

Mr. Knevels, of Newburgh, N. Y., has a fine collection, and our friends in that vicinity will not let this opportunity pass by of gratifying themselves with a sight of the numerous and beautiful varieties in his possession.

### *Leguminosæ.*

*Acacia spectabile* is now in flower at Mr. Wilder's; we also have it coming into bloom at our garden; it is a lovely species and highly odoriferous in its flowers. *A. lophantha*, common in most gardens, is now also in bloom; its growth is too rapid to make it a favorite, as it soon acquires a size which forbids its admission to ordinary green-houses.

Plants of the magnificent *Clíanthus puniceus*, (noticed in vol. ii, p. 79,) are for sale by Mr. Buist, Philadelphia.

### DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

#### *Ericaceæ.*

In this order many beautiful species and varieties of *Azalea*, *Rhododéndron*, *Erica*, *Andrómeda*, &c., will be in flower at the various gardens. At Mr. Wilder's, *Azalea indica ignescens*, i. Gillinghámi, i. *phœnicea elegans* and i. *Smithii coccinea*, will blossom, together with most of the common sorts; *phœnicea* has already begun to open its flowers. With us, *Azalea indica Smithii* will be superbly in bloom; last year the plant, which was small, had upwards of a hundred flowers expanded at one time; it will produce a greater number this season. This is the handsomest of all the azaleas that we have ever seen; some gardeners have expressed an opinion that it is not the true *Smithii*, as plants have been received from England marked *Smithii coccinea*, and from this it is inferred that there is a spurious and a true sort: for ourselves we have no doubt of its correctness, as no other kind has that very peculiar habit of producing eight or ten flowers in a cluster. *Erica arborea* is now charming in all collections in which it is found, with its branches clothed with its delicate little racemes of blossoms. *E. rubida* has been in fine flower in Mr. Towne's choice collection, and many others are now about showing bloom. *Rhododendrons* will not bloom quite so freely this season as usual; *R. arboreum hybridum* is beginning

to open its buds at Mr. Wilder's. *R. álta clerénse*, which blossomed so finely at our garden last season, has not a single bud upon it this.

# MONOCOTYLEDONOUS PLANTS.

## *Amaryllidææ.*

During the present month, at Mr. Wilder's, there will be a brilliant show of amaryllises, including some of the very finest varieties: this very desirable tribe is just beginning to be appreciated, and we hope that now there is no difficulty in cultivating them, to see plants in every good collection. Many of the species will do well in a green-house, though a stove is better suited to their habits. *A. Belladónna* *crocàta*, *tricolor*, *vittàta*, *Johnsoni*, and several others, will flower finely in the former situation. The following species and varieties were expanded a week since, or had already thrown up strong flower-spikes, which will be open in a few days:—

<i>A. pulverulénta</i>	<i>pulverulénta grándiceps</i>
<i>trícolor</i>	<i>grándiceps</i>
<i>rubro crócea</i>	<i>tortuósa</i>
<i>glaucescens</i>	<i>Húmei</i>
<i>retinérvia</i>	<i>Limária</i>
<i>striatífloa</i>	<i>rhodolénta</i>
<i>refúlgens</i>	<i>Comptónia</i>
<i>psittacína</i>	

The plants are well grown, and look in excellent condition. Many more kinds, in addition to the above, will probably bloom a few weeks hence. *Crinum amábile* was throwing out a large flower-spike.

## *Orchidææ.*

Some of the plants of this curious and splendid order will bloom at Mr. Wilder's soon; *Goodyera discolor*, and *Oncidium flexuosum*, with two or three West India and Rio Janeiro species, are beginning to show buds. These plants are very well managed and in good health; we see no difficulty in growing them as well as other plants.

Besides the above in *Crassulææ*, *Sempervivum arbóreum* is in flower at Mr. Wilder's and at Mr. Sweetser's. In *Epacridææ*, *Epacris impréssa* is finely in bloom at Mr. Wales's forcing flower-garden. In *Labiææ*, *Prostanthera lineàris*, in *Euphorbiææ*, *Poinsétia pulchérriima*, in *Goodenææ*, *Lechna-últia Baxteri*, (formosa *Bot. Mag.*) highly ornamental, in *Musacææ*, the splendid *Strelitzia reginæ*, and in *Orchidææ* the charming *Blétia hyacínthina*, are in bloom at Mr. Wilder's. In *Oxalidææ*, *Oxalis rósea* is now ornamental with its numerous rosy colored blossoms, and in *Primulææ*, the white and purple

primroses are beautiful wherever grown. In *Papaverææ*, *Pæonia Moïtan* *papaverææ* and the variety *Banksiæ*, are rapidly advancing their flower-buds, and have already opened a few blossoms in some of the neighboring collections.

## MISCELLANEOUS INTELLIGENCE.

### ART. I. Domestic Notices.

*The Chinese Mulberry, Mòrus multicaulis.*—The immense quantities of this tree, now disseminated through every part of the Union, from the different nurseries, will undoubtedly serve to test thoroughly its good or bad qualities. Its hardihood will also be fairly proved by the present winter, which, so far at least, may be considered a season of the ordinary severity. For ourselves we have no doubt that the *Mòrus multicaulis* will become perfectly naturalized in every part of the Union south of 42° latitude, and that the facility of silk-rearing will be wonderfully increased by it. The leaves being of very large size, the trouble of gathering a given weight is greatly diminished, and there is every reason to believe that two crops of silk may be reared upon them in a single season. The French silk growers now plant the *Mòrus multicaulis* entirely in rows or hedges, to be kept dwarf by cutting them down to within one, two, or three feet of the ground annually. The advantages of this method are—perfect hardihood of the plants—facility in gathering—and enormous weight of foliage from a small surface. In addition to this, a crop of silk-worms may be fed on the leaves from cuttings of the Chinese mulberry of a single season's growth, instead, as in the case of the old Italian variety, of waiting until the tree attained considerable size before plucking the foliage. It appears from accounts in the French journals, and from experiments made by ourselves, that the *Mòrus multicaulis* cannot be reproduced with any certainty from seed, and, consequently, must be propagated from cuttings or layers. A considerable quantity of the seed was imported and sold by the American seedsmen last spring at enormous prices, but we believe in every instance the seedlings have shown themselves different from the true *M. multicaulis*; generally exhibiting finer foliage and more robust growth than the white Italian mulberry. Fortunately, however, there is no necessity of resorting to the seed for the propagation of this excellent variety of the mulberry, as no tree is more easily grown from cuttings or layers of the branches.—*A. J. Downing, Botanic Garden and Nursery, Newburgh, N. Y.*

*Hardiness of young Fruit Trees in elevated situations.*—It is a remarkable fact that during the seasons following the two late severe winters of 1834—5, when, in consequence of the intensity of the cold, such tender fruits as the peach, nectarine and grape, have been destroyed in the warm plains and valleys—the same fruits, in elevated situations, upon ranges of mountains, &c. have thriven well and produced abundant crops. We have had occasion to remark this several times

the past summer, on the Catskill and Alleghany ranges of mountains, where the peach trees in particular were healthy and loaded with fruit, when in the old and fertile plains below scarcely a single peach was to be found. The cold, it is well known, increases in the proportion of the decrease of temperature of one degree of latitude for every eight hundred feet in altitude, and we must look for some other cause than temperature, to account for the abundance of fruit in these elevated sites. This cause we believe to be the superior *vigor* and *thriftness* of the trees in the new soil of the mountain ridges, and the greater consequent hardihood of the whole system of the tree in such localities. This opinion receives much weight from the fact that in this establishment, in the severe winter of 1834, when the old peach trees were almost universally destroyed or greatly injured by the cold, the young and thrifty stocks, many thousand in number, were not in the least affected. The deductions which we would draw from these facts are, that fertile spots in mountain ranges may be made to yield a profitable return by planting them with the more delicate fruits—and (contrary to the common opinion) that young trees, in a highly vigorous state, are less liable to be affected by intense cold than old unthrifty trees.—*A. J. D., Botanic Garden and Nursery, Newburgh, N. Y.*

*Mauandya Barclayana*.—This very beautiful plant was displaying its flowers on the south side of a building at the residence of T. Lee, Esq. Brookline, as late as December 1. The severe frosts in November destroyed part of the foliage, but a succession of flowers continued to appear up to that date. Its hardiness, separate from the elegance of its dark tubular shaped corollas, should recommend it to every garden.—*Cond.*

*Bleeker's Meadow Pear*, which has had considerable notoriety as a native fruit, has been much overpraised: it is certainly not above a third rate variety. I had an abundant crop this season. The great fault is, the hardness of the flesh—it never becoming buttery and melting like the fine varieties, either when ripened on the tree or in the fruit room. For the rest it has a good flavor, but cannot be ranked among good fruits, now that we have the beurré Diel, Duchess d'Angouleme, Capiaumont, and so many other delicious pears.—*Yours, An Amateur, Newburgh, N. Y.*

*Mrs. Marryatt*.—This distinguished patroness of botany and gardening was elected, at a late meeting, an honorary member of the Massachusetts Horticultural Society.—*Cond.*

*Garden Engines*.—An excellent engine for the various purposes of gardening, such as washing wall trees, trees in forcing houses, vines in graperies, &c. is manufactured by Mr. J. Clark, Court-street, Boston. It throws the water with considerable force, and we have been informed by gardeners who have had it in use for some time, that it is an indispensable article in large gardens containing graperies, &c.—*Id.*

*The Red stock (Malthidra incana and annua)*, was "the favorite flower" of Cuvier, and the sentiment which prompted his preference, the memory of a mother, is as honorable to his character as any more striking incident in his life, in the capacity of the profoundest investigator of Nature. What delightful stories are connected with many a little floweret, and with what renewed interest do we regard the humblest vegetable whose history is connected with that of man! Burns has immortalized the simple "crimson-tipped flower," as the daisy, which grows in wild luxuriance in the meadows of Britain, and we cannot see a patch of its descendants in the double varieties of the garden, without an admiration of the character of the poet who could by the magic of his song captivate our hearts. The meek blue corol of the *Myosotis* with its golden eye, fringing the bank of the sluggish

ditch, and giving grace to its weedy margin, recalls the token of true affection, in the oft repeated "Forget me not." Nor unapt is its name; for though it may long pass unnoticed, from its unobtrusive character, yet, once found, it will ever after prove a favorite. Emotions such as these, which the simpler beauty of a flower excite, are worthy the finer and higher principles of our nature, and evince a connection and sympathy with nobler and better things.—*R.*

*Morus multicaulis*.—We have left out this season, in our garden here, upwards of twenty strong roots of this plant, with the object of testing its hardiness. The shoots were cut off close to the ground, as recommended by M. de Wael, vol. ii. p. 391, and about three inches of soil thrown over them. The situation is a sheltered one, under a south-west fence: and the unsettled question respecting their hardiness in this latitude we hope to set at rest.—*P. B. H., jr., Cambridgeport, Dec. 12th, 1836.*

*Inarching Camellias, by inserting the bottoms of the Scions in a phial of Water*.—We have lately seen a large plant of the camellia in the forcing flower-garden of Mr. Wales, Dorchester, on which he has inarched several varieties by this system. It is an excellent mode when it is desired to inarch a large plant with several kinds, and supersedes the necessity of elevating other plants on stages for the same object. A scion of a rare variety can also be carried a great distance, and inarched on to another plant.—*Cond.*

*Pæonia Moutan papaveracea var. Rawësi*.—A plant of the same kind as that mentioned, in our article in vol. ii, p. 371, as existing in Col. Perkins's collection, and which we suppose to be the variety *Rawësi*, will be in flower in a few days in Mr. Leathe's green-house, in Cambridgeport. We hope when it opens to satisfy ourselves respecting its true name.—*Cond.*

*Forty-fold Potatoes*.—This fine variety, which we have frequently noticed, and which has been cultivated to a considerable extent the past season, and is likely to be more so the coming one, is an enormous producer, and we have been informed by several gentlemen, who have grown it, that the quantity of potatoes generally found in a hill is three times the number of any other sort. Owing to this large number, the potatoes are, consequently, not so large in size as they would be were there not so many in a hill; a gentleman who raised upwards of fifty bushels year before last, observed this, and, the past season, ordered but one potato to be planted in a hill; but when the crop was dug the number of potatoes was found to be nearly as great as the year before. The coming season he informs us that he shall cut them up into *sets*, and in this manner one potato will plant three or four hills: what the result will be remains to be seen; but we have no doubt that the potatoes will be less in number and of much larger size. The same gentleman has stated to us that he thinks it is the best variety he has ever eaten.—*Cond.*

*Loasa nitida*.—This plant, which has been recommended as a beautiful annual, is not deserving a place in the flower garden. The leaves are covered with a prickly armature, which appeared to be hollow tubes, secreting a poisonous fluid. The flowers cannot be plucked without some of their prickles stinging the hand, which wounds are generally attended with considerable pain. When there are so many annuals which are so much more beautiful than this, it seems singular that it should have ever been recommended to cultivation.—*Id.*

*Araucaria imbricata*.—Plants of this splendid species are for sale by Mr. Buist, Philadelphia. This species, as also most all the coniferous tribe, are multiplied extensively by cuttings and layers by the French nurserymen. We hope to see it in all collections of plants.—*Id.*

ART. II. *Queries, Criticisms, &c.*

**Errata.**—In our last, at p. 15, bottom line, for "East Cambridge," read West Cambridge; p. 28, line 20 from the top, for "glòria belgica," read glòria mûndi. In this number, p. 41, line 12, from the top, for "O'xalis," read O'xalis; p. 57, for "Dr. Isaac Mease," read Dr. James Mease.

**Rôsa ferox and the Kamtschatka rose identical.**—A remark will be noticed in the "List of Plants" attached to the December number of the second volume of this Magazine, page 470, respecting the specific of a large single red rose, commonly known in the few gardens in which it is cultivated, as Rôsa ferox. By that remark it would appear that this commonly received name was not correct. With this opinion I entirely disagree, and for the following reasons, viz. .

I. *Rôsa Biebersteini* Lindl., or *Rôsa ferox Bieb.*, which is supposed to be the genuine species, having *white flowers*, will be found to belong to that group of roses, whose stems are covered with *very minute* prickles, and which have small delicate leaves, which, from their striking likeness, are termed *Pimpinellifoliæ*. To this group belong the beautiful Scotch rose and its numerous varieties, which may be considered as its type.

II. The Kamtschatka rose has neither pimpernel leaves nor minute prickles; on the contrary, its foliage is very large and of a vivid green, and its prickles stout, rigid and long, and of uniform size.

III. This rose will also be found to be of *Caucasian* origin, the *Rôsa ferox* of Lawrence and the *Rôsa kamchatica* of Redouté.

For these reasons I am still inclined to maintain the common appellation of the plant in question, unless other and more decisive authority is adduced to invalidate its prior claims.—*An admirer of Rôsa ferox.*

**Sago Palm** (*Cycas revoluta*).—A plant in full bloom was presented at the New York Horticultural Society's exhibition, in October last. Can any of our friends inform us whether it was a male or female?—*Cond.*

ART. III. *Massachusetts Horticultural Society.*

**Saturday, December 31st.—Exhibited.** From J. Heard, Esq., Burgermeester pears, (see Mr. Manning's account of this fruit, p. 48.) From B. Weld, Roxbury, Passe Colmar pears. From P. C. Brooks, Esq., Burgermeester pears. From B. V. French, Bellflower and Danvers sweet apples. From James Eustis, Baldwin apples.

**January 7th.—Exhibited.** From the Hon. E. Vose, Lewis, Wilkinson and Passe Colmar pears, all fine specimens: also Marygold and Hubbardston Nonsuch apples. From L. P. Grosvenor, Chapdler apples, and a kind called the Queening, but not the true variety known by this name; the Chandler apples we have before stated to be an excellent fruit. From James Eustis, apples, very handsome, the name unknown.

**January 14th.—Exhibited.** From J. M. Ives, Salem, Carhouse, Fama Gusta, and Michael Henry pippin apples: also a kind, the name

unknown; the first named fruit was handsome and of fine flavor. From R. Manning, Nelis d'hiver and Newtown virgoulouse pears; the former is a fine fruit, as has been stated by Mr. Manning in his excellent article in the present number.

## ART. IV. Faneuil Hall Market.

From To			From To		
Roots, Tubers, &c.			Pot and Sweet Herbs.		
	\$ cts.	\$ cts.		\$ cts.	\$ cts.
Potatoes :			Parsley, per half peck,.....	25	
Common, { per barrel,....	1 50	1 75	Sage, per pound, .....	17	20
	62½	75	Marjoram, per bunch,.....	6	12
Chenangoes, { per barrel, ..	2 00	2 25	Savory, per bunch,.....	6	12
	75	1 00	Spearmint, per bunch,.....	6	
Eastport, { per barrel.....	2 50	3 00			
	1 00	1 25	<i>Fruits.</i>		
Turnips: common,			Apples, dessert :		
per bushel,.....	50	75	Common, { per barrel,....	1 50	2 00
French, { per barrel,.....	1 50			75	1 00
	50	75	N. Y. Pippins, { per barrel, ..	2 50	3 00
Onions :				1 50	2 00
per bushel.....	1 00	1 25	Russsets, { per barrel,.....	2 00	2 50
red, { per bunch, ..	4	6		1 00	1 25
white, { per bunch, ..	4	6	Baldwins, { per barrel,.....	2 00	2 50
Beets, per bushel,.....	75	1 00		1 00	1 25
Carrots, per bushel,....	75	1 00	Golden Pippins, per bushel, ..	1 50	2 00
Parsnips, per bushel,....	75	1 00	Bellflower, per bushel,.....	1 50	
Salsify, per bunch,.....	12½		Pears :		
Horseradish, per pound, ..	12½	17	St. Germain, per dozen,...	50	1 00
Radishes, per bunch,.....	17	25	Passe Colmar, per dozen,...	none.	
Shallots, per pound,.....	20		Chaumontel, per half peck, ..	50	75
Garlic, per pound,.....	14		Messire Jean, per half peck, ..	37½	50
			Baking, { per barrel,.....	3 50	4 00
				1 50	2 00
<i>Cabbages, Salads, &amp;c.</i>			Quinces, per bushel,.....	none.	
Cabbages : per dozen,			Cranberries, per bushel,.....	6 00	8 00
Savoy,.....	50	75	Pine Apples, each,.....	25	37½
Drumhead,.....	1 00	1 50	Grapes: (foreign,) per pound, ..	25	
Red,.....	1 00	1 50	White Malaga,.....	20	
Cauliflowers, each,.....	25	50	Purple Malaga,.....	20	
Lettuce, per head,.....	10	12½	Berberries, per bushel,.....	none.	
Celery, per root,.....	12½	25	Oranges, { per box,.....	3 00	3 50
Spinach, per peck,.....	50			25	50
			Lemons, { per dozen,.....	3 00	3 50
				25	37½
<i>Squashes and Pumpkins.</i>			Shaddocks, each,.....	25	
Canada, per pound,.....	none.		Chestnuts, per bushel,.....	4 00	5 00
Winter crook neck, per pound, ..	7	8	Walnuts, { per barrel,.....	4 50	5 00
Lima, per pound,.....	6			2 25	2 50
West India, per pound,.....	none.		Almonds, (sweet) per pound, ..	12	14
Pumpkins, each,.....	12½	20	Filberts, per pound,.....	4	6
			Castana,.....	3	6

REMARKS. There has been but a slight alteration in the state of the market since our last report. Sales continue dull, and very little is done in shipping. Potatoes, of common kinds, of rather ordinary quality,



are abundant; there have been the usual arrivals from the eastward, but few of the very best quality have come to hand; consequently prime Eastports and Chenangoes demand a high price and a quick sale. Salsify is scarce, and but little is brought in; it is not yet cultivated to much extent for the market. What radishes are received are very good, but they come in slowly.

Cabbages remain as at our last, but the quality of those now sold is poorer; they are exceedingly small. Cauliflowers are scarce; they demand a good price, and it is remarkable that they are not raised in greater abundance. Lettuces are scarce, but will probably soon be brought in; during this month they are less abundant than in any other in the year. Celery is quite scarce, and the supplies of fine roots are received from New York: this should not be; the marketmen of this vicinity might raise it in sufficient quantity for all demands; some roots of the *giant* red and white have come in this year; this is much preferable to the common sort, and it should be generally cultivated, as it commands a more ready sale, from its beautiful appearance; its quality is also better than the old kind.

Of squashes there is scarcely one of any sort to be found in the market. Arrivals from the West Indies are looked for, but there are none of this kind remaining on hand; a few crooknecks may be found, which quickly sell at our highest prices.

Sales of apples continue very dull. Fruit keeps well this season, and finer specimens were never seen at this season of the year. New York pippins have advanced a little. Chaumontel pears are very plenty, but other dessert varieties are gone. Cranberries bring an exorbitant price; they have not probably been as scarce for twenty years. Malaga grapes are yet plentiful.—*Yours, M. T., Boston, Jan. 20, 1837.*

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#### ART. V. *Meteorological Notice.*

##### FOR DECEMBER.

THE month of December was much milder than was anticipated from the severity of the weather in November. No snow fell during the month, and there were several rainy days: after the 25th, however, the thermometer ranged considerably lower, and the last three or four days of the month it fell below zero in the morning. Prevailing winds, as usual at this season, N. W.

THERMOMETER.—Mean temperature, 26° 16'—highest 50° above; lowest, 6° below zero.

WINDS.—N. two days—N. E. one—S. E. two—S. five—S. W. seven—W. four—N. W. ten.

Force of the Wind.—Brisk, fourteen days—light, seventeen.

Character of the Weather.—FINE, eight days—FAIR, sixteen days—CLOUDY, seven.

Rainy, six days.

## HORTICULTURAL MEMORANDA

FOR FEBRUARY.

## FRUIT DEPARTMENT.

At this season of the year but little can be done, except where there are forcing-houses. Towards the latter part of the month, however, the pruning of orchards may be commenced; large fruit-trees in the garden may also be pruned of all decayed branches.

*In the forcing department* there will be plenty of work, especially if it is very extensive. Where there are several ranges, trees will be in fruit in one, in flower in another, and just breaking their buds in a third. We have not room in this page to go into detail, but must refer those wanting information to the articles on forcing among the original communications.

*Grape vines* in the green-house will begin to swell their buds towards the latter part of the month; tie them up neatly to the trellis as soon as they do.

*Grape cuttings*, where there are hot-beds, and it is wished to procure strong vines the first season, may be now put in, each formed of a single eye.

*Peach and other fruit trees in pots*, now set in the green-house, will ripen their fruit early in the season.

## FLOWER DEPARTMENT.

*Amaryllises* will now begin to throw up their flower spikes; re-pot them in a fresh soil, and they will grow rapidly.

*Roses* should now be watered tolerably freely, occasionally, if convenient, using liquid manure, and they will make strong shoots.

*Cactuses* may now be watered occasionally: place them in the warmest situation in the green-house.

*Seeds* of various kinds of green-house plants should now be sown in shallow pans.

*Alstromerias* will be now pushing their shoots and should be immediately re-potted.

*Hyacinths, ranunculuses, &c.* should have plenty of air to prevent their being drawn up.

*Orange and lemon trees* may be grafted at this season; and the plants will be much handsomer than when budded.

*Dahlias*: those who are eager to have dahlias in June should start the plants this month.

*Camellias* will need good supplies of water till they have completed their growth. During this month inarching may be performed. Sow the seeds, if neglected last month.

*Calceolarias*: repot these, as soon as they require it, into larger pots.

*Propagate* all sorts of green-house plants at this season. Where there is a stove, cuttings may be put in the year round.

## VEGETABLE DEPARTMENT.

*Cucumber beds* should be put into operation this month; sow the seeds or procure plants as soon as possible.

*Celery, radish, lettuce, cauliflower and cabbage seeds*, should be sown for an early crop.

*Asparagus* may be easily forced in an ordinary hot-bed; but the roots should be laid in the cellar in the fall.

*Rhubarb plants*, in pots, may be brought forward, by plunging them in a good hot-bed.

*Tomato seeds* should be planted, to procure the fruit early in the season.

# THE MAGAZINE OF HORTICULTURE.

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MARCH, 1837.

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## ORIGINAL COMMUNICATIONS.

ART. I. *Forest and Timber Trees, the Osage Orange, &c.*  
By WILLIAM KENRICK, Author of the New American Orchardist.

I AM induced to send you a few remarks on timber trees, to which I shall add some observations on other subjects. I was induced to this by an observation in one of the late numbers of *The Cultivator*, a valuable work published by Judge Buel, at Albany, wherein, speaking of the Osage orange, (*Maclura aurantiaca*,) he says, "*The Osage orange is tender, even more tender than the Morus multicaulis, as it had there been killed down to the ground every winter.*" These are the words, as nigh as I can recollect, in substance. I had stated, in some of the periodicals last spring, which I have seen copied into other journals at Hartford and Albany—that the Osage orange was a hardy tree, as it had sustained the rigors of the last seven years near Boston. I have two trees standing on the hill where I reside, one seven, and the other eight inches in circumference—the one ten feet high, and the other eleven feet; here they have stood since the spring of 1829, without any protection, and are yet uninjured by our worst winters; one in a northerly and bleak exposure, the other north-westerly—the soil loamy, springy, resting on a solid hard pan of gravelly clay. The tree being yet rare here, I know none so large in this state, except at the Botanic Garden, in Cambridge, where I think I have seen them. I have generally bought these trees, but never recollect to have lost one single tree by winter.

Yet when I had read the account of Judge Buel, and towards the last of December, and some time after winter had set in, recollecting I had a nursery of a few thousands of these trees on

some low sloping land, which I bought late last spring, and then only a year old, I caused horse manure to be spread over the roots, leaving the tops quite exposed as before. I have but little or no fears for their fate.

We know from experience that even in our climate the pear, the cherry, the plum, and the quince, while young, and but of a single summer's growth, *are tender trees*, and require protection, during the first winter, on a naked and defenceless soil. We know that these trees, during the first winter, are liable to be thrown out by frost and destroyed, unless we afford them protection; but in the second winter, if they grow well, we have rarely witnessed any injury from winter.

I am inclined to believe that the climate of the valley of the great Hudson river is exposed to a degree of extreme cold during winter, which is unknown in the same latitudes on high hills remote from that river, or on the lands near the sea. The same remarks may apply to the valley of the Connecticut, from the position of this river, throughout its whole extent, from Canada to the sea.

I have good evidence that the climate of the whole valley of the North river is, in all low situations, another and much more severe and destructive climate, during winter, than ours at Boston,—the extreme cold of Canada being brought down and concentrated by the prevailing winds, which usually blow either north or south, and seldom across the stream; and the frosts of summer are more common and destructive in these valleys, as the dews exhaled by day descend and rest on these valleys by night. I have evidence of this in the frequent destruction of the cherry trees, particularly at Albany, and of some other trees which in other situations are deemed hardy. Albany being in the same latitude as Boston, I have never particularly noticed in our journals how low the thermometer had descended at that place. I only recollected once to have observed that it descended as low as twenty-four degrees below zero; but it may at times have gone down much lower, as I think I remember seeing an account that it had descended to thirty degrees below zero at Troy, which is but ten miles above Albany. I am further assured by gentlemen on whom I can rely, that the whole valley not only of the North river, but also of the Connecticut, is another and distinct climate from ours. I have accounts of the occasional destruction of large bearing hardy trees by our late winters, as far down the river as Glastonbury, below Hartford, particularly of the pear, peach and cherry, also of the hardy forest trees occasionally for many miles above. Two years ago the thermometer was as low as thirty-three degrees below zero at Northampton, and this winter I noticed it had descended to thirty degrees below zero on this same river, at Hanover, Vt.

The Osage orange is a beautiful tree; its leaves bear striking resemblance to those of the orange tree, and the wood, like that of the orange, is armed with long sharp spines. At Philadelphia it is asserted that it makes the finest, the strongest, and most beautiful hedge in the world, being set out in a single row, at the distance of twelve or fifteen inches asunder.

As to the timber, my authorities are, the Hon. Mr. Sevier, late member of Congress from Arkansas, and Mr. Flint, who wrote the account of the Western States, who assert that the wood is remarkably tough, strong and elastic, and is preferred by the Indians to all other wood for bows, and hence its name of *bow wood*. The timber admits a fine polish, and is useful as such to the cabinet maker. For timber, they assert it is one of the strongest and most durable in the world, and is preferred, in the construction of steam-boats, even to live oak.

Observing the remarkably hard texture of the three-thorned acacia, I had suggested that this wood promised to become a most valuable timber tree, like some others of the same tribe; but this suggestion was contradicted in some of our eastern journals, where it was asserted that the timber *was worthless*. But Mr. Flint has assured us, in his work on the western country, that the three-thorned acacia is one of the strongest and best of all the varieties of timber, and is much used in the construction of steam-boats on the western waters.

It is truly said by artificers in wood, that for many purposes a pound of wood is stronger than a pound of iron. In regard to *strength*, the oak, the shagbark, and the ash are among the most valuable known with us, in our climate, and are applied to an infinite variety of uses. The ash, though less durable than the oak, is light and strong, elastic, and works very smooth, and is therefore very superior to oak for a variety of uses; for the shafts and springs of riding carriages particularly. There may be, however, some kinds of wood even superior to the ash for all these purposes. I have observed, for this last purpose, that the *lance wood* has lately been used, a tree which grows in the West Indies, and is far superior, stronger, more firm and elastic, inasmuch as the shafts and springs of chaises formed from this material required but half the volume or thickness as ash; iron or steel could not for these purposes supply its place. I know that the wood of tropical countries is more solid and compact generally than ours, but I hope some kinds may be found in our own extensive country equally as good and far superior to our native timber, and adapted to our climate.

Respectfully, your friend,

WILLIAM KENRICK.

*Nonantum Hill, Newton, Jan. 1837.*

ART. II. *The Garden.* By the Hon. J. BUEL, Albany,  
Conductor of the *Cultivator*.

I CONSIDER a good garden not only as contributing largely to the sustenance and health of the family, but as a pretty good indication of the taste, comfort and refinement of its inmates. Nothing is more conducive to health and rational enjoyment than fresh fruits and vegetables, gathered or plucked at maturity from one's own garden. They are luxuries that cannot be purchased. Desirous of contributing my mite to their extension and improvement, I send you some remarks, principally quoted from high authority, on the vernal management of the fruit department, which deservedly holds a high rank, both as a source of pleasure and of profit, in this branch of rural labor.

The varieties of the pear now in culture furnish a succession of fine fruit for the table through the whole circle of the year. Trees planted by the father comfort and enrich his children to the third and fourth generation, and serve to carry down his name to a grateful posterity. They are delicious for family use, and always command a good price in the market. The Virgoulouse of the valley of the Hudson is usually sold at two to three dollars the bushel, and I have seen them sold at fifteen to seventeen dollars the barrel; and other varieties, equally luscious, need but be better known to command an equal price. The plum and the peach, where the latter can be grown, are equally desirable for family use, and profitable for the market. The same remark holds good as to the grape, with the further advantage, that this, as well as the plum, may be preserved fresh and fine for winter use, by alternating them in stone jars, with cotton batting or dry saw-dust. The smaller fruits, as the strawberry, raspberry, currant and gooseberry, are all easily multiplied from a succession of delicacies for the table for two or three months, and are more or less promotive of health. All these fruits may be enjoyed by the farmer in superior excellence, without seriously abstracting from the labors of the farm. They may be most of them kept in a dried state, for family use or for market, during the year; and when beet sugar becomes as abundant here as it is now in France, an event which I expect ere long to see realized, preserved fruits may become as common with our farmers, and be made to contribute as largely in our bills of fare, as they now do in some parts of the eastern continent.

The season for transplanting, and for propagating by grafting, layering, and by cuttings, being at hand, some remarks upon these processes will not be considered impertinent, and I trust not unprofitable.

The first step is, where scions are to be employed, either as grafts or cuttings, to secure the desired varieties without delay. They should be separated from the parent stock before the bud begins to swell. They may be transported to any reasonable distance, and kept till wanted for use in a cellar, or with their butt-ends well plunged in earth. The larger fruits may be propagated by grafting or layering; the grape, currant, quince and gooseberry by cuttings. As you have already treated on these processes in your Magazine, I will quote from Professor Rennie, to explain more fully the scientific principles upon which they depend for success.

#### “SCIENTIFIC PRINCIPLES FOR TRANSPLANTING.

“The removing of growing plants from one part of the garden to another is done for various reasons, and the science of transplanting will consequently depend on the intention of the gardener in the operation. The principal facts to be recollected are, that every plant takes its food by the tips of the root fibres, and that the sap thence carried up into the leaves has much of its water and oxygen carried off by exposure to light, particularly to sunshine. It follows, that if part or all of the tips of the root fibres be broken off or bruised, the plant will be kept hungry or starved, just as an animal would be, with its mouth much injured or blocked up; while if a plant in such a state is placed in the sunshine, the water and oxygen carried off thereby will very soon cause it to flag, wither and die.

“*Transporting*.—If the gardener’s object then be simply to move plants from one place to another, without affecting their growth in any way, it will be important to preserve every root fibre entire; and even, when this can be done, to take it up with part of the soil in which it has been growing, or with a large ball of earth, as it is termed. When this cannot be done, the root fibres ought to be placed in their new station, as nearly as possible in the manner they were at first; and hence dibbing, where the soil is at all stiff, will be a bad practice, from its being certain to confine and crush the root fibres within the walls of the dibbed hole.

“If it be found impossible to preserve these root fibres from injury, or to replant them exactly as they were, then, in order to diminish the loss of water and oxygen, the plants ought to be shaded from the light, or, if that cannot be done, they ought to have a suitable proportion of their leaves or branches cut off. De Candolle says, this practice was wont to be so universal upon the continent, that the gardener’s maxim was, ‘If you plant your own father, you must cut off his head.’ Sir Henry Stewart has proved the bad science of such universal barbarity.

“It is important not to plant the roots too deep, so as to be

out of the reach of air, or too shallow to expose them to drought." If the holes are made sufficiently large and deep, so as to have the roots surrounded, when the plant is in its place, by well pulverized surface mould, a tree should not be planted more than an inch deeper than it stood in the nursery. The object in transplanting cabbage, brocoli, &c. is, by checking their growth, to throw them earlier into flower or head. Trees are frequently transplanted in their young state, by nurserymen, purposely to abridge their long roots, and to increase their root fibres. They are therefore in the best condition for final planting, after they have been one year transplanted, and done well, in the nursery. They are then removed with nearly their entire roots.

#### "SCIENTIFIC PRINCIPLES OF STRIKING.

"By certain experiments, not by any means praiseworthy, yet, beyond all question, it has been proved that, if the head of a snail or earth-worm be cut off, the body will not only live for a considerable time, but a new head will be reproduced, with a mouth capable of taking food. By similar experiments it has been found that the legs of spiders and the feet of frogs, when cut off, are reproduced.

"Upon a similar principle, when the roots of certain plants, which are to them what the head is to animals, are cut off, new roots may, under peculiar circumstances, be reproduced. The chief condition required for the reproduction of such roots, is the preservation of their life, till the roots have time to form, and various expedients are resorted to with this view, as well as for the quick production of their roots.

"*Striking by Layers.*—The common mode of striking by layers is to select a branch, to slit, tongue, or cut it half through, in a direction sloping upwards, or to take off a ring of bark, or pierce it in several directions with a brad-awl, or twist a wire round it, to bring the part operated upon in the earth, leaving the point above ground, and to fix it in its place by a crotched stick. The descending pulp, otherwise called elaborated sap, or cambium, is stopped short by the cut, in its passage toward the root, root buds are formed by it, which soon send out roots into the moist earth, and when these are deemed strong enough to feed the plant, the branch is cut off a little below, and the tree in miniature is ready for planting out. The soil should not be too damp, lest the cut part canker.

#### "SCIENTIFIC PRINCIPLES OF GRAFTING.

"When the finger is cut with a knife, the blood-vessels soon contract their cut extremities into an opening so narrow, that the thicker and red part of the blood cannot pass, and the bleeding herefore ceases. But even then there oozes out the thin watery



part of the blood, consisting chiefly of matter, the same or similar to the white of an egg, which, being thus separated from the rest of the blood, thickens by the heat of the body, as the white of the egg does by boiling. If the lips of the finger cut accordingly be kept close together by sticking plaster, they will become united by means of this natural glue or serum in little more than a day. Upon the same principle I once succeeded, as others have done, in managing to unite the whole upper joint of a finger which a boy had chopped off by machinery; and experiments have been successful in causing the spur of a cock to unite and grow upon his comb.

“It is upon similar principles that the science of grafting is founded; for if a young branch, like the boy’s finger, be taken off by a clean cut, and the cut extremities immediately joined, the descending pulp will thicken like the watery part of blood, and while it remains soft the sap from the cut end of the sap-vessels will force its way through to their continuation above in the cut slit, which, if the process be successfully managed, will grow as well, or nearly, as if it never had been cut.

“If, again, instead of applying the same cut scion to the part it was cut from, a scion from another tree be applied, as if I had applied to the boy’s finger the tip of another boy’s finger, chopped off by the same accident, there seems no good reason to doubt that a similar healthy joining might, by care, be effected. In the case of animals, indeed, such joinings are rare, because rarely tried, but in garden plants they are exceedingly common, for the purpose of continuing esteemed varieties of valuable fruits and flowers, accidentally produced by cultivation, as well as for forwarding the fruiting of young trees, since seedlings require years to arrive at a bearing state.

“On examining the joining of a graft about a fortnight after it has been made, I have found, as in a healing finger-cut, a number of small roundish grains, in the form of a thin layer, produced from the thickening of the pulp, and destined to form the hard substance termed the callus, which in general projects a little externally, and the scar differs in appearance from the other parts of the bark. It is, however, only in the space between the pulp-wood and the bark that the uniting substance is formed, and therefore it is evident that the slip to be grafted must have this part applied to the same part of the stock, and, if these differ in thickness, at least to one side.

“One of the most obvious principles of this process is, that the sorts to be grafted should be alike, or nearly alike, because, in that case, the arrangement of the sap and pulp-vessels being similar, their cut ends will more readily apply mouth to mouth, and less obstruction or interruption of the circulating juices will take place.

"To this principle there is an exception, arising from the peculiar design which the graft is intended to fulfil. Where the design is to increase fruit-bearing, the stock may be of firmer texture than the cutting, as when a peach cutting is grafted on a plum stock, which, having narrow vessels, a part of the descending pulp is stopped short, and serves to strengthen the branch. If it be intended to increase the branches and leaves, on the other hand, a plum cutting grafted on a peach stock might probably do so, by allowing the ascent of more sap.

"*Binding of the Graft.*—When the joining has been made, by cutting and properly fitting the bark of the slip to the back of the stock, at least on one side thereof, it must be bound so as to prevent this junction from being deranged. This is usually done with a ball of three parts of clay, well worked, with one part of fresh horse droppings, and a little finely chopped straw, the whole about an inch thick, and two inches or more in length, being tied with a ribbon of bass."

The principle upon which this is done, is to prevent the oxygen of the atmosphere from getting to the fluid pulp at the joining, where it would unite with the carbon, and form carbonic acid gas, and thereby rob the pulp of its solidity. The exclusion of light is necessary on the same account, for, as in the case of the finger cut, the oxygen would unite with the carbon, and would prevent the thickening of matter from the blood. On the same account, moisture, by supplying oxygen, would be injurious; and dryness might act both as exhausting the pulp, and by causing the edges of the back to shrivel and gape, which would facilitate the entrance of the air and its oxygen.

#### PRUNING.

We have been the constant advocates for summer instead of winter pruning—of pruning after the leaves have expanded, and the limbs have nearly or quite completed their vernal growth, in preference to pruning when trees are leafless and the growth dormant. We have done so because we considered it most rational in theory, and have found it more beneficial in practice. As it is the general practice to prune fruit trees at this season, we will capitulate the reasons which have influenced our practice.

1. Winter pruning causes an increase of spray or weak limbs, which it is the object of the cultivator to lessen, in order to admit the light, heat and air into the head of the tree, to perfect and mature the fruit. On this point we quote Prof. Rennie:—

"The head or branches," he observes, "will always be in proportion to the roots, and the food with which they are furnished. It will therefore be preposterously obvious to dream of checking the luxuriance of a tree by cutting out its branches in

autumn or winter; for no sooner does the sap begin to flow in spring, than fresh branches will arise from the strongest branch buds below where the pruning was made, and the same quantity of sap being furnished, the tree will very soon be as luxuriant as before the operation. Frequently it will be more so, for the pulp laid up in the roots the preceding autumn will be more apt to cause new root fibres than in an unpruned tree. So true is this, that weak old trees are often headed down, to render them luxuriant; though the same gentleman will also extensively top luxuriant trees in winter, with the hope (certain to be frustrated,) of checking their growth. Summer pruning, however, has a different effect, and when young shoots and suckers are thinned off in summer, they prevent a tree from exhausting itself."

2. Winter pruning bears to the sun and winds at the worst season of the year, and long before the heading process can commence. The cut part either dries and checks, making a lodgment for rains, and causes disease and death, or the sap exudes from the wound, producing canker, and corroding the bark.

3. Both of these evils are averted by summer pruning. New sprouts are seldom thrown out, and the diminished flow of pulp or elaborated sap is expended in healing the wounds, by covering them entirely, or their edges, with new wood; and in the formation of buds.

It should be borne in mind that light, heat and air are all necessary to develop the excellence of fruit. Without their co-operation fruit neither attains its natural color, consistence or flavor. Light is necessary to give substance, hardness and color. Heat is indispensable to the active circulation of the sap and the formation of sugar, or the principle of flavor. And air is necessary in modifying the sap, while undergoing the elaborating process. Hence the utility of exposing fruit to the influence of these agents, by thinning the wood upon fruit trees. In the apple, especially, it is advisable to train its top in the form of an inverted funnel, by cutting out the leading upright shoots as soon as three or four arms or branches, at a proper height, are sufficiently advanced to receive and elaborate the sap coming from the roots. Upright wood does not produce fruit like that which inclines, or grows nearly horizontal. So that taking out the leading stem not only produces more but better fruit. As leaves are as necessary to the formation of roots as roots are to the formation of leaves, in pruning, one third of the stem should at least be left untouched by the pruning knife.

I am, dear sir, yours, &c.,

J. BUEL.

*Albany, Jan. 24th, 1837.*

**ART. III. *Remarks on the Duration of the Improved varieties of New York Fruit Trees.* By A. J. DOWNING, Botanic Garden and Nurseries, Newburgh, N. Y.**

THE cultivators of the finer varieties of fruit are much interested in this subject, which has already been considerably agitated abroad; without, as we think, a recurrence to those careful practical observations which ought to influence strongly the conclusions at which it is desirable to arrive. Mr. Knight, the venerable president of the London Horticultural Society, and Dr. Van Mons, of Brussels, have given it as their opinion, (of no small importance,) that every variety of fruit has a natural period of duration, after which it inevitably decays and perishes. All propagations by grafting, inasmuch as they are but extensions of the parent tree of that variety, must necessarily therefore follow the same laws, and, finally, as the original stock becomes enfeebled by age, decays and perishes, the same effects are visible in the grafts or cuttings taken from it. New varieties are again obtained from seed, that being the only manner in which nature reproduces and reinvigorates herself.

When Mr. Knight, some years ago, first propounded this theory, he did not attempt to fix definitely the probable duration of any varieties of fruit; but for proofs of its general correctness, he referred to many fine old sorts which then exhibited symptoms of decay and degeneration, among which the English Golden pippin, a variety of several hundred years existence, was a prominent example: most of the trees of that kind of apple, showing, at that time, symptoms of approaching decay in almost every part of England, except two or three of the southern counties.

Dr. Van Mons, who has reared an immense quantity of trees, both from seeds and cuttings, and also originated many excellent varieties, considers that as a fine and improved variety of fruit is entirely an artificial production—the product of culture alone—it therefore decays with the more rapidity the farther the variety is removed from a state of nature; in other words, as the varieties of apples, for example, are produced in gradually ascending excellence, from the austere crab to the most delicious and highly flavored dessert apple, by a successive improvement in each generation, the crab, being the species in a state of nature, will have the longest possible period of duration, while the last most improved and most artificial variety, will, of course, soonest run through its allotted period, and become extinct. The Doctor's experiments appear to have led him to believe that some of the

fine new varieties, of pears, for instance, will not attain a duration of more than fifty or sixty years!

That the theory here briefly stated is, in some degree, correct, no one who is acquainted with the details of vegetable physiology, as understood at the present day, can reasonably doubt. The question, however, is, what may be the probable duration of a healthy variety, and what are the causes which hasten its deterioration and decay?

From many and repeated observations, we have been drawn to the conclusion, that the duration of any given variety of fruit, which has been originated from a healthy parent, may be propagated for two or three, if not for many, centuries. We do not believe that the grafts taken from the original tree of a certain variety inevitably follow the same laws of nature, and are affected by the same period of decay, as that original tree; but we are rather inclined to the belief, that the sudden decay of any given variety arises from causes depending upon the manner of its propagation, by grafting or otherwise, when *a proper attention is not paid either to the healthiness of the stocks grafted upon, or to the grafts themselves.* We conceive this opinion receives additional support from the fact, becoming every day more clearly understood by physiologists, that the buds are as entirely and decidedly distinct individual plants as the seeds themselves; although they may undoubtedly, when separated from the parent stem, more readily carry with them and perpetuate any feebleness or disease inherent in the variety, than the seeds of the same.

It may be inquired by those who have unhesitatingly adopted Mr. Knight's theory, how then do we account for the extinction of some of the finest old varieties of fruit in those very districts and countries where they originated? Why are the Golden pippins, the Nonpareils, &c. no longer thrifty and productive in England, as formerly? Why do "we no longer see the beurré's, the St. Michael, the St. Germain, and other pears, as before, in the markets of Paris?" The usual answer is that these varieties are extinct, from sheer old age, that their period has passed by, and they should be cast away as no longer worthy of cultivation. With all due deference, we cannot believe a word of this. On the contrary, we have not the slightest doubt that the fine kinds of fruit have only become "miserable outcasts" from having been carelessly and improperly propagated.

Accumulated experience has taught us that the stock and the graft exert a reciprocal influence upon each other. That as an unhealthy stock may communicate its disease to the graft growing upon it, so, also, a healthy stock may be affected by inserting in the same a diseased graft. Many variegated leaved plants (which, though generally admired, are but diseased varieties,) are prop-

agated by grafting, through successive generations, without losing their unhealthy taint, although placed on the most healthy stocks. The common gold-blotched leaved apricot is a familiar illustration. Most of those varieties of *weeping trees*, as the weeping ash, cherry, laburnum, &c., which are the results of accidental deformity and disease, are continually perpetuated by grafting, without losing their distorted and anomalous forms, by being joined to healthy individuals of the same species. An apple, known in some of the nurseries as the Vine pippin, so called from its curiously twisted branches, is nothing more than the Newton pippin, propagated from some unhealthy and deformed branch. Do not these undeniable facts prove that it is in the highest degree probable, that those fruits which now occur in some districts, quite deteriorated and worthless, are so merely from having been propagated in those districts from diseased individuals of such varieties? If we suppose that but four trees of a new variety are first propagated from the original tree—that by chance one of these grafts has been placed upon a diseased stock, and that this tree falls into the hands of a cultivator or nurseryman who propagates thousands from it, disseminating them throughout the whole country, will not the disease be continued more or less throughout all the trees which he rears? The trees may, perhaps, for a long time, be fruitful and vigorous, if the parent was but slightly unhealthy; but the latent disease still remains, and the whole propagation will, finally, exhibit symptoms of premature decay. The same effects may follow, in case the original tree is not propagated from until it has reached an advanced age, if grafts are then taken from old and unthrifty instead of young and vigorous branches. We have no hesitation in saying, that to these two causes are owing the present decayed and miserable state of the fine old varieties in many parts of Europe. This is the more strongly confirmed in our mind, when we recollect that here and there districts are found in England and France, where these old varieties flourish in all their native vigor and beauty. Pomologists have attempted to account for this by saying, that an enfeebled variety begins to show symptoms of decay and old age soonest in the more northern districts, while in warmer localities the trees may yet remain in a great degree flourishing. It happens, most unfortunately for this opinion, that some of the fine pears, which have now become quite worthless in the mild climate of Paris and its environs, are yet very fair and fruitful in some of the colder counties of England.

We regret to perceive that in the neighborhood of Boston, either from the causes here mentioned, or from the vigorous influence of the sea-breezes in that neighborhood, the same deterioration of the old varieties of fruit is apparent, which is so much the matter of complaint abroad. The horticulturists there

seem also inclined to adopt the theory of Mr. Knight which we have heretofore stated. We can assure them, *malgré*, that in the valley of the Hudson, in the same parallel of latitude as that city, these old varieties flourish with all their primitive luxuriance, unimpaired by the long lapse of years which the European pomologists imagine has already put an end to their existence.\* The beurré's, the Bergamot, the St. Michael or Virgoulouse, some of the oldest known varieties of pears, produce annually large crops of handsome and delicious fruit. The English Golden pippin, which Mr. Knight has benevolently consigned to oblivion, is here every year loaded with apples beautiful enough to have grown in the garden of the Hesperides; and, indeed, these old kinds are now more vigorous than some of the newer varieties, which, probably, from causes we have just stated, are not so healthy in appearance as we could desire. Do we then believe that the finer varieties of fruit have generally no limited period of duration? Certainly not. On the contrary, we are confident that from the general carelessness of those persons who propagate fruit trees, the heedlessness with which they propagate indiscriminately from every thing which comes in their way, and the extreme difficulty with which a disease once introduced into the system of a tree is expelled from any portion of it, even by grafting on the most healthy stocks, that almost every variety will in time degenerate and become extinct. But a knowledge of these facts will enable us to guard against these evils, by propagating only from healthy individuals and upon healthy stocks, whereby the duration of any variety may be prolonged to an incredible extent. It will teach us, also, the fallacy of bringing into general cultivation any variety, however new or promising,

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\* How shall we reconcile Mr. Kenrick's remarks, in the *American Orchardist*, p. 28, with those contained in his article in our present number in respect to these fruits? In the above work he states, that "those varieties, therefore, which no longer succeed with us, may yet continue for a while to flourish in the middle regions of the Union, and especially in the interior, beyond the limits and influence of the cold easterly sea-breezes from the Atlantic, which, rising with the diurnal appearance of the sun, visit us so regularly and constantly at stated seasons." These remarks were probably made in consequence of the excellence in which the varieties of pears he alludes to were, and yet are, produced throughout nearly the whole extent of the country, except within a few miles of Boston. But the climate of the whole valley of the North river, he says, is "another and much more severe and destructive climate than ours at Boston." The frosts of summer are more common and destructive; yet all the pears he so unhesitatingly calls *outcasts*, are produced there in as great perfection as they ever were on the original trees of these varieties. Certainty this does not agree with Mr. Knight's statement, which Mr. Kenrick has adopted. It cannot be the cold latitude of Boston which causes these fine fruits to be unworthy of cultivation.—*Cond.*

which has been originated in such a manner as to contain within itself the germs of disease; and, finally, that we may renew a fine variety in any locality, when it has become barren and worthless, by procuring scions from healthy trees of the same kinds, growing in districts where they are still flourishing.

A. J. DOWNING.

*Botanic Garden and Nurseries, }  
Newburgh, N. Y., Feb. 1837. }*

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ART. IV. *On the Cultivation of Geraniums, (or Pelargoniums.)* By J. W. RUSSELL, Superintendent of Mount Auburn.

As this tribe of plants is now coming into extensive circulation, I send you a few remarks on their propagation and growth, premising that they may be useful to your readers at the present time.

I hereby beg leave to mention, before I go any farther, that the common name *geranium* I intend to adhere to, believing that this lovely genus of plants is more generally known by its original cognomen than by the scientific one *Pelargonium*.

This splendid tribe of plants is so well known, that any description of them would be superfluous; and however common they may appear to some persons, still, perhaps, there is not in the whole catalogue of plants a more extensive and endless variety than may be found in this old favorite genus. Any person who has had the pleasure of seeing a choice collection in full bloom, will, perhaps, agree with me in saying this much—that a more charming sight is rarely or ever met with in the floral kingdom. If we notice the amazing difference in the habits of growth of each variety, the great diversity of foliage, the agreeable fragrance of some, and, above all, the magnificent appearance of the flowers of others, some most delicately pencilled, and others gorgeously painted, indeed adorned with every color and shade that art or taste can imagine, we must concede to them a rivalry over almost all other plants. If we take into consideration the length of time they continue in bloom, the ease with which the very best varieties are obtained, it would be difficult to mention any one family of green-house plants that would be so likely to give such universal satisfaction.



In England geraniums are so much valued, that houses have been built expressly for their culture; some of which have circular fronts, with arched roofs, not unfrequently connected with the mansion house, and others with *span roofs*, which, if I mistake not, take the precedence over any other kind of structure for the growth of geraniums.

To cultivate and grow geraniums to great perfection, (however simple it may appear to be,) it is indispensably necessary for the well doing of the plants that they be near the glass, where they will not be in the least *shaded* by others of a more ramping growth; a free circulation of air must be given every opportunity. If this is neglected, they are great *tale tellers*, and will soon speak for themselves. The most delicate sorts ought to be arranged together, for if mixed in with more robust growers, they are sure to suffer more or less from their not being able to keep pace with them. Some judgment in watering is also necessary, as some of the strong growing sorts need a much greater supply than those of weaker habits; some of the species have thick fleshy roots, whilst others again are fibrous rooted. As a general rule to go by, the fibrous rooted kinds make the most luxuriant growth.

The propagation of these plants is so well known, that almost every cultivator has a system of his own; therefore, I shall merely state the method I prefer to all others yet known by me. In the first or second week of June, make up a bed of oak leaves, eighteen inches in height, and about twelve inches wider all round than the frame you intend to use for this purpose; but if the leaves are not at hand, use stable manure, making the bed of the same dimensions as just stated; but if the bed, after it is made, should happen to throw up a strong heat, it must be remembered that the cuttings should by no means be placed in it before the heat is on the decline. I wish the reader to understand me when I say, all that is necessary is a *moderate* heat, which will be the means of the cuttings making fine roots in a short time. A *north* or *north-west* aspect should be preferred. Supposing this much is done, and all is ready for the cuttings, proceed to take them from the plants, and first strip off two or three of the lower leaves, and make a straight cut under the petiole or *foot-stalk* of the leaf, observing to leave them not more than four inches in length; this done, prepare as many No. 1 pots, or the smallest size that is made, as are wanted, by placing a piece of pot over the hole at the bottom, with the *hollow side* downwards, and filling it up to the rim with finely sifted, rich soil, with a portion of sand well mixed with it; then put only *one* cutting in the centre of each pot, to the depth of one and a half inches, and thus go on until the whole are finished,—then give them a gentle watering with a watering pot, through a fine rose. A few days

before the frame is wanted for this use, about four inches of light dry earth should be put over the bed, in order to plunge the pots in regular order down to their rims.

This system of propagating the geranium, I have no doubt, will not be approved of by some individuals, who may think that there is no necessity to go to this trouble to propagate a plant that almost every person who makes the attempt, no matter what method is taken, generally succeeds; nevertheless, where fine young plants are preferred, it will be found, by trying the method I have proposed, that they will be very easily obtained; and in situations where framing is carried on to any extent, all the care that is necessary will be amply remunerated by the beauty of the plants.

If a north aspect near to a high fence or building has been selected, no shading will be necessary;—observe to prop up the light that is on the frame every fine day a half an inch or an inch. In the course of three weeks or a month the cuttings will be well rooted, and as soon as this is ascertained, the glass must be taken off altogether, in order to give them all the advantage of light and air, looking over them occasionally, to see that they do not suffer for the want of water, &c. Plants propagated in this manner may be grown to any shape or size the cultivator wishes to have them in one year; for by being rooted in the first place singly in pots, the plants receive no check when they are repotted into larger ones, but will immediately start and make a vigorous growth. The geranium will soon unite by being inarched, or grafted by approach, making choice of one for this purpose that is a free grower, to work on such varieties as any cultivator's taste may suggest; and if neatly done by a good workman, the different varieties when in flower, on one plant, are a great curiosity.

Mr. Hogg, of New York, has a superb collection, embracing all the fine English varieties. The display of flowers must surpass any thing of the kind in this country.

Yours,

J. W. RUSSELL.

*Mount Auburn, Cambridge, Feb. 1837.*

It would be almost superfluous for us to recommend the above communication by Mr. Russell. The geranium is not grown in our gardens to near the perfection that it is in England, and for the only reason that the idea is so prevalent that it may be cultivated without any trouble. This is, however, an error; for though they be made to bloom easily, the plants are generally drawn up with spindling shoots, and they remain in beauty but a few weeks. In England they bloom from April to August.—*Cond.*

**ART. V. *On the Production of new varieties of Flowers, from Seed, by Cross Fertilization.* By the CONDUCTOR.**

THE immense number of new flowers, as well as fruits, which have, within late years, been raised by the English and French horticulturists, has been the means of enriching our gardens with artificial productions, in many instances, far more splendid than the original species. At first this operation was confined to a very few genera of plants, but within the few past years almost every flower commonly grown in our gardens, or at least in the gardens of our transatlantic friends, has been subjected to the skill of the florist. It is almost unnecessary to mention any particular plant, so familiar are these artificial productions to every gardener; the rose, the camellia, and particularly the dahlia, have been more the immediate objects of their care, and the gorgeousness of the blossoms of some, and the delicacy of others, of the latter plant, have commanded, and indeed have well deserved, the highest admiration of every amateur and lover of flowers. There seems to be, and there probably is, no limit to the production of new varieties.

It is not our object in the present paper to go into a physiological discussion of the nature of these, generally termed, hybrid productions, but which some writers seem not to consider as such; but merely to make some remarks which may be a guide to the novice in the raising of new varieties.

There is no department of horticulture or floriculture which affords more pleasure, or engages so much the interest of the cultivator, as the production of new varieties of fruits or flowers. To commit the seed to the earth, watch its vegetation—its progress in its infant state—its more mature growth—guarding it from all dangers,—and, finally, as it begins to show signs of perfecting its fruit or opening its blossoms, to mark its daily progress, until it greets the eye of the impatient cultivator, either affording him pleasure or disappointment in its qualities or properties, is a source of intense gratification.

To produce a new and superior variety of any fruit or flower is an achievement of no mean importance; and the producer of such is entitled to the gratitude of every lover of floriculture.

To see at once the importance which the production of new varieties, by impregnation, has had upon the progress of floriculture, we need but point out the dahlia. Some years ago (not at the most above ten or twelve) there was nothing but single ones, or very inferior semi-double ones, known in this country. Look, however, at the variety now cultivated. Thousands of kinds of almost every shade of color (except blue or any thing very near

approaching it, and which will not probably be ever obtained,) and with several shades in one individual flower. Until hybridization was introduced, none other than self-colored ones were known—that is, flowers of which the petals were all of one shade; but now we have shaded, striped and edged ones of surpassing beauty and shape. The camellia is another instance;—until 1819 no seedling varieties had ever been obtained except in China. From the common warratah, however, by impregnating that sort with the finer double ones, several kinds, almost equaling in splendor the Chinese ones, have been successively raised. Not above eight or ten varieties have since the above date been introduced from China; yet some collections in France and Germany enumerate three or four hundred sorts. In this country, in New York, several varieties have been produced, one or two of which equal, if not excel, any of the English seedlings. Of the more tender flowers, the geranium, the calceolaria, and the amaryllis have been subjected to the skill of the florist; of hardy or nearly hardy kinds, the rhododendron and the azalea have been wonderfully improved; and here we have evidence of the great importance of cross fertilization in that most superb variety, the *álta clerénse*. This plant was raised from the *R. arbóreum* of Nepaul, a quite tender species, which had been impregnated with a hybrid between the *catawbiénse* and *pónticum*; and the history of its production is here worthy of note. To obtain a hybrid between the *R. arbóreum* and some of the hardy kinds had long been desired; but the specimens of the *arbóreum* at Highclere (the Earl of Caernarvons,) had never shown any disposition to bloom. It had, however, flowered at the Grange and some other places, and from the former an umbel of its splendid blossoms was produced, and carried in a tin case to Highclere. With the pollen of the flowers the seedling before named was impregnated, and about eighteen hundred seedlings were raised. These were distributed among several nurserymen before they flowered; but among those retained at Highclere was produced the *álta clerénse*.

The Hon. and Rev. Wm. Herbert, a well known raiser of hybrids, has produced a great number of new varieties of different genera; and his experiments go to prove that these varieties are in many instances fertile, and will reproduce, with impregnation, other new varieties. His experiments have been mostly made with the *Amaryllidaceæ* and the *Gladioli*, though he has extended them in a greater or less degree to most all classes of plants. The hybrids he has raised of the *Gladioli* are, many of them, extremely splendid.

In the production of new varieties, the first object of the cultivator should be to select such plants as would appear most likely to produce fine kinds from the intermixture of the two;

thus in the camellia the semi-double red, sometimes so called, the *rôsea* or *Middlemist's* of most catalogues, impregnated with the single white, produced the three splendid varieties known as *Press's eclipse*, *punctata*, and *rôsa mundi*, all of which were raised from one capsule of seed. Here we see in these kinds a resemblance to both parents in the foliage. They are each handsomely shaped, but the flowers of *eclipsis* are better formed than either of the others. The *warratah*, or *anemoneflora*, is the parent of a major part of the new varieties; but, in general, the seedlings raised from this are not near so perfectly formed flowers as those raised from the *rôsea*. They most always partake too much of the character of the female parent, and have one or more rows of outer petals, and the centre of the flower filled with small ones, frequently intermixed with stamina. There are, however, some exceptions, as we may instance *eximia*, which was raised from the *warratah*, as it is in shape very similar to the double white. It should be remarked, in raising new varieties of camellias, that it is desirable that they should approach as near as possible to the form of the double white—that generally being considered as a standard, as regards form. We know of but one, in addition to the *eximia*, of all the European or American seedlings, which has this form, and that is the celebrated *Fløyii*, which, in our opinion, far excels all the colored varieties. Of this latter kind, we know not its parentage. As this tribe is now attracting the attention of florists, we hope that those who are raising seedlings will not let this thought escape their notice, as it is better to have a few, and have them splendid, than a large number possessing little or no beauty.

The geranium has long been noted for its superb varieties, and at one time, in England, the new sorts were in great demand, and brought an exorbitant price. The *Geraniæ* of Mr. Sweet spread a taste for this tribe, which brought it into very extensive cultivation, and no collection was complete without the new geraniums. But the publication of this work was suspended, and the taste for the plants gradually lessened until they were *unfashionable*; this was, of course, a sufficient cause to abandon their growth, however so beautiful they might be; and although they are at the present moment again becoming more generally cultivated, yet they will not ever in England be so highly appreciated as they were once. In this country the taste for them is on the increase, and we shall probably soon see many superb collections. But the varieties are of English or French origin, and as yet few attempts have been made to produce new sorts here; we cannot account for the apparent neglect of experiments in the raising of seedlings, unless it is that the plants are not yet sufficiently in demand. We hope, however, that our amateurs will soon boast of their seedling geraniums, as well as of camellias

and other flowers. One advantage the geranium possesses over the camellia is, that while the cultivator has to wait for the result of his experiments, in the latter plant, five or six years, the former may be known in eighteen months, and oftentimes less. Of the English growers, Messrs. Dennis & Co. are the most celebrated.

But the dahlia has received, in a short space of time, at the hands of the florist, more attention than any other flower. Requiring but little patience to produce new sorts, they have been grown in immense quantities both by the amateur and the nurseryman, and the consequence has been the production of a great number of magnificent varieties. As an instance, however, of the chance of obtaining a fine sort, only six have been saved, worthy of naming, out of *seven thousand* seedlings. Cross fertilization is not so necessary with the dahlia as with most other plants, as the blossoms are produced in the open air in great abundance, and the wind and bees effect what, in other plants, could only be done by the hand of the cultivator. The first parti-colored ones were produced by impregnation, and where it is attended to, and the flowers covered with gauze, to protect them from the bees, the chance of success is much greater.

These are but a few of the plants which have been so wonderfully improved by artificial productions, and are merely mentioned to show to what extent cross fertilization has been, and still may be, carried. When we reflect that, but a few years since, collections of plants were almost confined to species alone, with but few varieties, and these accidentally obtained, the importance of continued experiments with almost any family must be apparent. But unless these experiments are carried on judiciously, the new varieties will be less beautiful and desirable.

But one great value of fertilization is the effect it will have upon the naturalization to our climate of many, what are now termed, tender plants; and not only will naturalization be affected, but the beauty of the plants will generally be greater, as we have seen in the *Rhododéndron álta clerénse*, and, for a perhaps more familiar example, the hybrid roses, which partake of the beautiful character and habit of the Chinese, and are yet sufficiently hardy to stand our winters unprotected.

It is to the *Rhododéndron*, with which botanists have now united the *Azálea*, that we would direct the attention of cultivators. We have but two species, the *máximum* and *álbum*, of this family, which are hardy in our climate. But by fertilizing the blossoms of these with the magnificent *arbóreum* of Nepaul, or any of its varieties, or with any of the oriental azaleas, we shall, in all probability, raise intermediate kinds, which will possess part of the beauty of the male parents, and still be sufficiently hardy to stand our winters unprotected. From the *Azálea* nu-

diffōra, heretofore so called, has already been raised many very superior varieties: our common viscōsa may, no doubt, be made to produce very handsome varieties: calendulācea, common in the middle and southern states, is the parent of a very large number of seedlings of great brilliancy. This tribe is sadly neglected by our amateurs and gardeners, and it is rare even to find the most common species in our gardens; but we hope more attention will be given to them, and that we shall see them in shrubberies and pleasure-grounds, where they certainly, in the months of May and June, eclipse all other shrubs. In England, France and Germany, several hundred new kinds have been raised. The tree pœony is another plant from which new varieties may be raised, and, as they are hardy, would be valuable ornaments to the shrubbery. The plants flower in about five or six years from the time the seed is sown.

The operation of impregnation is simple, and easily performed: the only thing necessary to know is, the proper time at which the stigma is ready to receive the pollen. This varies in different plants: thus in the camellia the stigma should be impregnated almost as soon as it is seen, even before the flower fully opens: but in the geranium it should not be performed until some time after the flowers expand: one reason why geraniums do not generally impregnate themselves is, that their anthers fall before the stigma is ready to receive the pollen. In flowers that are likely to be impregnated with their own pollen, the anthers should be cut out carefully with a small pair of scissors, so as not to injure the stigma, before they burst, otherwise the stigma will be fertilized by its own pollen: if the plant to be impregnated stands in the open air, it will be necessary to cover it with gauze, to keep the bees from conveying to the flower particles of pollen from other flowers: if in the green-house or stove, unless late in the season, there will be no necessity of this. Fertilization may sometimes be effected with two or three different kinds, as it is supposed that the fecundating dust will fertilize another portion of the seeds in the capsule than those at first impregnated. Mr. Knight has stated that he dusted the stigma of a smooth cabbage with the pollen of a Savoy and of a red cabbage, and obtained seedlings which were both curled and of a red color. This shows that a plant may be impregnated, and with effect, with two, and perhaps more, different sorts. We have ourselves applied the pollen of two different camellias to one stigma, but we cannot for some time tell the result. The same experiment we tried with some seedling strawberries: but the labels were unfortunately lost, and, consequently, we could form no correct opinion. From the experiment of Mr. Knight and others, and also from the fact that the stigma is composed of minute tubes, through which the fecundating dust descends to the germen, we

have no doubt but that the stigma of a flower may be impregnated with two or more kinds, and that the seedlings will partake more or less of the varieties from which the dust was taken.

Hitherto in this country very few individuals have attempted to produce new varieties by impregnation, and these attempts have been confined to a very few classes of plants. The practice may therefore be considered as yet but in its very infancy with American cultivators. Mr. Floy, nurseryman, of New York, and Mr. Harrison, have probably done more than any others; but their efforts have been chiefly confined to the camellia: indeed, if we except these individuals, we know not of any other attempts to produce new varieties, worthy of note, the results of the experiments of which have yet been made known to the public. Within two or three years many seedlings of camellias, amaryllises, and of various plants, have been raised; but few of them have yet attained to a flowering state; we may anticipate soon, however, a display of new varieties obtained in this manner.

It is with a view to call the attention of amateurs and cultivators of plants to the importance of raising new varieties, by cross fertilization, that we have at this time thrown out these few desultory remarks. Many species and varieties of various plants are now coming into bloom, and more particularly the rhododendrons and azaleas, and the present spring should not be suffered to pass by without saving a few seeds. Many cultivators never make a beginning, for to look forward four or five, or more, years seems too long a space to wait to see the result of their labors. We would say to those who adopt this opinion, make a commencement, sow every year, and after those of the first planting begin to bloom, a succession will constantly follow, affording, in the anxiety to see the blossoms, and the continued display of new forms and colors, a varied and constant source of pleasure and gratification.

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#### ART. VI. *Calls at Gardens and Nurseries.*

*Belmont Place, Watertown, J. P. Cushing, Esq.—February, 1837.*  
With the exception of last autumn, when we walked hastily through the garden, we have not visited this fine place for above a year; since which time there has been many new plants added, and others,



which existed in the collection previously, though but small specimens, have now acquired sufficient strength and size to bloom finely. We are glad to hear from Mr. Haggerston that Mr. Cushing is continually adding new things to both the stove and green-house collections, and also to the garden department generally. Some fine new French roses have just been received, and they came in excellent order; these, together with a considerable number of fruit trees of various sorts, were laid in in one of the graperies, there to remain until the planting season.

In the green-house and stoves every thing, as usual, denoted care, attention and cleanliness; the plants were in most vigorous health, and looked better than we have ever seen them. In the green-house the geraniums are pushing forward their buds very rapidly, and, in the course of three or four weeks, will be one blaze of bloom; among them are some very excellent varieties. This tribe of plants is getting to be better appreciated than heretofore, and the new sorts are quite eagerly sought after; indeed, we should not be much surprised if they were to become quite the rage with amateurs. Already in New York, where the collection of Mr. Hogg is annually seen in bloom, the new varieties command a good price, and are sold in great numbers; many of the newly originated varieties are exceedingly splendid. No plants have a more elegant appearance in the green-house at this season than the white azaleas, the *A. ledifolia*: there was in bloom here two plants, which were one mass of charming snowy flowers. *A. punicea* (?) and *phœnicea* were also extremely showy, particularly the former, which appears to us to be synonymous with the hybrida of other collections. These plants are highly valuable for parlor cultivation, producing their flowers as freely, and nearly as finely, as they do in the green-house.

There are several excellent species and varieties of *Erica* here, among which one called *ardens* was most conspicuous. Certainly there is no tribe of green-house plants, not even the camellia, which will excel this exquisitely beautiful genus; and we are glad to notice that they are becoming more generally grown. The only obstacle to their extensive cultivation is the great difficulty with which the plants are imported—it being almost impossible to get them alive; consequently, the only way to procure the plants is to raise them from seeds, which are sometimes received from the Cape of Good Hope. *E'pacris paludosa* and *grandiflora* were both in bloom. A species of *Spiræa*, received from China, was very beautiful, with numerous axillary corymbs of white flowers. Mr. Haggerston thinks it may prove hardy, and will probably try it out another winter, when he has duplicate plants; if so, it will be a very valuable addition to our hardy shrubs, and, being of the same habit as the *S. bella*, which should be in every garden, may be planted out with the latter. Two plants of *Rhododéndron hybridum*, one of which had expanded four of its surpassingly magnificent umbels of flowers, were conspicuous objects.

We noticed several pots of the lily of the valley which had been slightly forced; they were in full bloom, and we would recommend them to be grown both from the ease of cultivation, the certainty with which they produce their flowers, and also for their exquisite odor. To a small bouquet, a spike of its drooping and delicate flowers imparts a most agreeable fragrance. *Lachenalia pëndula* was pretty with its drooping yellow blossoms. This is a class of plants which we rarely see in collections; but they deserve to be generally grown. Numerous pots of oxalises, primroses, stocks, mignonette, &c. were displaying abundance of bloom.

Passing into the stove, through what will be a kind of conservatory, we noticed a plant of *Solándra grandiflora*, with twelve or more of its large showy blossoms expanded, and with upwards of twenty buds yet

to open. It is a desirable plant, the flowers being somewhat similar in form to the *Brugmansia*. We here also saw the *Pæonia Moutan* *papaveracea* var. *Banksia*; with twenty flowers expanded at once!—a most superb object. *P. Moutan* *papaveracea* was just shedding its last blossom: it had been brilliant with twelve flowers open at once. In this house, the double white camellia, which was turned into the border, made most luxuriant growths last spring. On a single plant, also set in the border, Mr. Haggerston had just worked over a hundred inarchings. It will be a curious object when in full flower.

In the stove, the first objects that struck us were the pine plants; these have grown so much as to completely fill the pit, in which they are plunged, with one mass of foliage; many of them are of large size, and will probably produce fruit next season; they will all undergo the operation of a fresh potting this month. The number of pine plants is very great, and it is in the highest degree gratifying to see Mr. Cushing entering so earnestly into their cultivation. He will be richly repaid with an abundance of fruit. The new passion flower, so highly spoken of, *P. Kermestras*, though a weak plant, was about opening a few flowers. The hibiscuses, as usual, were displaying a profusion of blossoms. *Amaryllis vittata* Johnsoni and formosissima were splendidly in bloom, and a large number of species and varieties were throwing up flower spikes. Many of Mr. Haggerston's seedlings, which we have before mentioned, and which are not yet two years old, are showing buds. We are much pleased with Mr. Haggerston's system of managing the *A. formosissima*, or Jacobean lily: it is much better, where there is a stove, than growing it in the open air. By his method the plants bloom twice, and often three times, a year, and the flowers are of large size, and remain in perfection several days. The plants are always retained in the pots, and are liberally watered when in a growing state, never allowing them to dry, as is usually done with the other species of this tribe: we never saw finer specimens of flowers.

One of the most elegant things we observed was the *Blëtis Tankervilleæ*, one plant of which had two spikes of flowers upwards of three feet in height, and covered two thirds of the distance with its blossoms: it is truly a most desirable plant. The pretty *B. hyacinthoides* was also blooming. *Allamanda cathartica* is a charming running plant, with beautiful yellow, bell-shaped blossoms. *Bréxia madagascariensis* was showing a few flowers, but they are of no beauty. The fine *Combrétum purpureum* was brilliant with its profusions of vivid crimson racemes of flowers; it has scarcely been out of bloom for nearly a year. *Psidium pryriferum* was showing both flowers and fruit. *Melastoma atomelia*, with its purple blossoms, and *Ixora rosea*, were both ornamental. *Crinum amabile* has lately opened a very large umbel of flowers. *Astræa Wallichii* has been superb with three or four of its pendulous umbels of blossoms. Some account will be found in another page of a plant which has flowered in Philadelphia the present season. *Plumbago rosea* has been very showy all winter with its rosy colored blossoms; though not of so robust a growth as the *capensis*, nor do we think quite as showy, yet it is sufficiently so to be a favorite in all stove collections. One of the fine ipomæas, mentioned by us before, has unfortunately died.

We had almost forgot to mention the grape vines, in pots, and the strawberry vines, in the stoves. The former are plants grown from eyes and from coils last season; the shoots are from six to eight feet long, and are trained around sticks set in the pots; almost every eye shows two or more fine clusters of blossoms, and we have no doubt there will be a fine crop. The pots are standing upon one of the pits, where there is a gentle bottom heat, the surface of the soil in them

top-dressed with manure, and the whole occasionally treated with it in a liquid state. Cultivated in this manner, we have always thought that grapes in pots might be made to produce an excellent crop, especially in stoves and green-houses; and thus supersede the necessity of having vines planted in the border to run up and overshadow, by the density of their foliage, the whole of the plants: when vines are grown in these places, either they or the plants must suffer. Some strawberries were nearly ripe; they were the Keen's seedling, and though they had not set remarkably well, some of the individual fruits were very large.

In the forcing ground a new range of pits has been built during the past autumn. It is upwards of ninety feet in length, is built low, and is heated by brick flues. It answers every purpose of early forcing, and is just what is needed in our severe climate, where, in the months of December and January, dung beds, or, indeed, any kind of pits which are warmed by the application of dung alone, either in chambers or by linings, cannot be managed without great attention and care. We have been convinced of this by what experience we have had in forcing. We had not time to examine the construction of this range, but if it continues to work with the same facility that it has so far, we shall endeavor, with the consent of the liberal proprietor, to present our readers with a plan of the same.

In the pit some fine cauliflowers had just been cut; the plants were growing vigorously, and were showing an abundance of large heads. Spinach, lettuces, &c. have been produced all the winter. The cucumbers were showing an abundance of young fruit, and a few had already attained to nearly the size for cutting. Hundreds of pots of strawberries were arranged on a shelf on the back wall, near the glass, which were just commencing to throw up their flower buds. The lateness of the day prevented our noticing a great many of the plants in this department.

*Oakley Place, Wm. Pratt, Esq.*—We here found the collection of plants nearly the same as on our previous visits. The camellias were nearly past blooming for the season, only here and there a flower being expanded. The white azaleas, of which there are here two fine large plants, were completely covered with blossoms; and the whiteness of the corols formed a pleasing contrast with the foliage of the other plants around them. A *phœnicea* was also very splendid with an immense number of flowers. But what pleased us was a plant of the *Cyclamen persicum*, with over two hundred flowers upon it, and was indeed a charming sight; we have seen large roots, but this was much stronger than any that we recollect of our ever having observed: it shows to what perfection it may be grown by proper management. *Erica bac-cans* was elegant with its numerous blossoms. There was a fine display of stocks just beginning to flower; they were grown exceedingly strong, and were beginning to open their flower-buds in abundance. *Vethelmia viridiflora* was handsome, with its spikes of blossoms. We did not notice any thing particularly new or choice. The grape vines on the rafters were just beginning to swell their buds.

In the forcing ground the cucumbers were in flower, and preparations were making for building new beds, for a succession of fruit, for radishes, &c. Mr. McLennan preserves the utmost order and neatness in every department.

*Mr. Towne, Snowhill-street, Boston.*—This choice collection affords to the amateur a great deal of gratification. The heaths are growing vigorously, and a few of them are now in bloom—among others, the *E. rubida* and *pubescens minor*; the former is a most lovely species, noticed by us before (vol. i. p. 204,) erroneously under the name of *rubella*, as flowering in Mr. Buist's collection at Philadelphia; it should

be in every collection of heaths. *E'pacris grandiflora* was also charming with numerous racemes of its delicate flowers expanded. The *Eutaxia myrtifolia* was full of buds, as was also the *Brunia verticillata*. There are several species of the *Diósma* here, two or three of which will bloom. The common tree pæony had a very large flower expanded. Several handsome camellias were also blooming. *Metrosideros semperflorens* was showing its spikes of buds: the different species of this genus are not so often met with in our green-houses as they should be; they are all beautiful, and flower at a season when there are not many other kinds in bloom. Indeed, nearly all the Australian and New Holland shrubs, which are peculiarly adapted to our green-house culture, remain yet to be introduced.

*Mr. Winchester's, Franklin-street.*—Since our notice of the erection of Mr. Winchester's green-house, we have had the pleasure of seeing it. It is a very neat structure, upwards of twenty-five feet long, and about twelve in width: it is heated both with a flue and hot water; the former running across the house, from one end, under the stage, against the back wall, and into the chimney at the other end; the latter runs from the boiler, at the back, to the front, and across to the other end, into the reservoir. The command of heat is more than sufficient. Mr. Winchester informed us, that he, at first, constructed his furnace with only a chimney, outside of the green-house, intending to heat it by hot water alone. This he was induced to do by the advice of some persons, who stated to him that the hot water pipes would be sufficient to answer all the purposes of keeping out the frost; but he found it would not do without a very large quantity of pipe. This it was not convenient to bring into the house, from its peculiar form, and the furnace was rebuilt, together with the present flue. We have conversed with some cultivators who think, without having made a trial, that the common hot water system, of four inch pipes, will heat a house without a flue; but we are convinced, that, unless they run completely round the house, and, we are doubtful, even with this quantity, they will not be adequate to the demand of heat. Those who hold this opinion do so, because they have read in English works on gardening, that this system is adopted in that country; yet they do not take into consideration the difference of temperature in the climate. Rarely there does the thermometer fall more than 10° below the freezing point of Fahrenheit, while with us it descends 30° below, frequently 40°, and sometimes 50°; this makes a vast difference between the systems of heating green-houses in that country and this. We have in view some remarks upon the proper mode of constructing furnaces, and heating stoves, green-houses, &c., and hope at some future time to give them to our readers, accompanied with several plans.

We found here, already, a very pretty collection of plants; among the rest we noticed ten or twelve varieties of camellias, including *Rosa sinensis*, *althææflora*, *Elphinstonia*, &c. which had each a flower expanded. Some handsome plants of *Erica arborea* and *mediterranea* were in full flower. A fine plant of *Acacia longifolia* was one mass of golden blossoms; it is one of the most showy species. *Amaryllis psittacina* was throwing up a flower stem. It gives us great pleasure to see such a taste spring up in this city, and cannot but have a good effect upon the progress of gardening. Mr. Winchester thought that he had built largely, but he has found that he might have made his house of greater dimensions, and then be too limited in space to hold the plants which it would be his desire, from his growing taste, to cultivate.

*Mr. Sweetser's, Cambridgeport.*—The display of camellias here has been fine, and some very pretty varieties have opened. The plant mentioned in our last as about flowering, called *gigantea*, did not open

its bud, owing, probably, to the weakness of the plant; but there is no doubt it will be a desirable sort. *Dérni* is a handsome, rather dark red, flower, and had one blossom expanded, which was very much blotched or marbled with white. *Lindleyi* is another pleasing variety; the color is a bright, soft pink, and the flower only semi-double. *Pæonia Moutan* *papaveracea* and *p. var. Banksia* have both been in bloom. The noisette rose *Lamarque* is now full of large and prominent buds, which will produce elegant flowers; this is one of the best roses we are acquainted with, and, in our opinion, is nearly equal to the yellow tea.

In the stove the cactuses are growing very strong, and some of the kinds will probably flower finely; but a large part of them, and especially those that are new, will not bloom until another season. The pit here continues to work well; one or two slight alterations have been made, by which the heat is entirely at command; the various plants plunged in the soil show the genial heat of the pit.

*Mr. Leathe's*.—In the span-roofed house here the plants look finely; their growth is more upright than in houses with only one angled roof. These kind of houses are very desirable for showing plants, as there is light on all sides. We hope to see them oftener erected: we are confident they are better adapted to the growth of some plants, particularly geraniums, which require to be placed near the glass, where they may have all the advantage of the light and air, to prevent their being drawn up.

Among the flowers in bloom are *Rhododendron Russellicum* and *ponticum*, the former most magnificent: one plant will have upon it six or seven fine umbels, wholly expanded, in a few days. The pæony, which we have noticed before, p. 76, is the same variety as we have supposed it to be; we have compared it with Mr. Sabine's description, in the *Horticultural Transactions*, and also given in our vol. ii. p. 371, and find it to agree exactly in every point. The foliage is very different from the other varieties in our collections, more resembling some of the herbaceous kinds. The flower is of a blush or delicate pink—the petals very much lacerated at the edges; there is no doubt of its being the *P. Moutan papaveracea* var. *Rawesii* Sabine. The history of the introduction of this variety is curious, and may not be uninteresting to our readers. When Mr. Cushing resided in Canton, he sent home to Col. Perkins several plants; among them was this pæony. It was not supposed by Mr. Cushing, that we are aware of, that it was a new variety, unless the roses, and the plant, which came out in tolerable good order, was treated in the same manner as others of the tribe then existing in Col. Perkins's collection. We do not know the period at which it first flowered, but we saw it in bud, for the first time, in the spring of 1834. We then expressed an opinion, that from the descriptions of all the pæonies which we had previously read, that it was a new variety, and not the roses. We have not seen the plant since. The one Mr. Leathe has was a sucker from Col. Perkins's, and has now blossomed for the first time.

It seems singular that in all the attempts that have been made by English amateurs and nurserymen to introduce new pæonies, only one plant of this variety, out of thousands of plants that have been imported into that country, should have ever been received. We have no knowledge of any other, and we may hence conclude that the plant mentioned by Mr. Sabine is the parent of all that may be existing in the European gardens. Here, however, we have it imported, but a few years after it was sent to England. Perhaps if our merchants, who have established houses in Canton, were to persevere, the yellow, the blue! and even black!! might be accidentally introduced: we say accidentally, for the selfishness of the Chinese is so great that they would not permit their choicest sorts to be sold, or, if sold, would palm off the common *Banksia* for them: thus the chance of getting a new variety

is greater by accident than by design. This variety is very beautiful, and a great addition to the others.

*Diósma ciliata* was full of its capitate heads of blossoms. *Babiana undulata*, a pretty species with pale, lilac colored blossoms, was flowering. *Camellia japonica* var. *compacta* had two fine flowers open; this is a neat little variety,—several common kinds were also in bloom. Mr. Leathe possesses quite a number of excellent geraniums, and the show will be very handsome in April and May.

## MISCELLANEOUS INTELLIGENCE.

### ART. I. General Notices.

*The Yellow Rose in Italy.*—I remember, in one of your early Magazines, a correspondent inquiring the name of a yellow rose that blooms and grows freely in Italy. I received a letter from a friend at Como, a short time since, in which he says that nothing can be more superb than the yellow roses in that neighborhood. At Genoa, Florence, and other places, there are also large trees of *Rosa sulphurea* (the common yellow rose,) covered with their brilliant yellow flowers, hanging like golden balls from the branches, in shape like our cabbage roses, and perfectly formed. How much it is to be regretted that our climate will not allow us to grow this rose in such perfection! I also ascertained from my friend in Italy the curious fact, that the yellow and copper Austrian roses (*Rosa lutea* and var.,) though both growing wild in the mountains near Como, never bear a single seed-vessel.—(*Gard. Mag.*)

*Mosses, lichens and insects*, which are prejudicial to fruit trees, may be destroyed by a simple solution of quick-lime, any time between the fall and opening of the leaf, applied with a watering-pot or gardener's syringe. It does its office, and withal promotes the growth of the tree.—(*T. Bishop, in Cal. Hort. Tr.*)

*Sap of Plants.*—Knight teaches, that the sap of plants *ascends* through the whitewood, and *descends* down the bark, depositing the matter of the new wood in its descent, but without becoming changed into it. That the matter absorbed from the soil and the air is converted into the true sap or blood of the plant *wholly in the leaves*, from which it is discharged into the bark; and that such portions of it as are not expended in the generation of new wood and bark, join, during the spring and autumn, the ascending current in the wood, into which it passes by the medullary processes. As the autumn approaches, however, and the ascending sap is no longer expended in generating new leaves and blossoms, or young shoots, that fluid concentrates in a concrete state in the sap wood of the tree, as in the tuber of the potato, and the bulb of a tulip, and joints of the grasses, whence it is washed out in the spring, to form a new layer of bark and wood, to form leaves, and feed the blossoms and fruit.—(*Cal. Hort. Soc.*)

*An Improvement in Tanning.*—The tanning process is likely to be greatly cheapened and expedited, by a recent improvement patented by Messrs. Bells, of Virginia. The improvement consists in freeing the

hide, as a preliminary measure, from grease, and every useless substance, by mechanical pressure, by means of rollers passing over them when drawn from the vats. They then imbibe the tanning readily, and the whole process is completed in from two to eight weeks.—(*Cultivator*.)

*Preservation of Fruit*.—Our holiday rounds have afforded ample proof of the efficacy of cotton in preserving fruits, in their natural state, for a long time after their natural period of decay. We have seen and tasted black Hamburg, sweet water and Isabella grapes, in this year, 1857, as fresh and plump as they were when plucked from the vines in September or October, preserved in cotton, according to the directions given in the *Cultivator* last summer. Fruits thus preserved should be mature, and perfectly dry, and if grapes, the unripe and defective berries should be carefully plucked off. They are placed in layers, and alternated with clean cotton batting, in a stone jar or tight box, the mouth of the vessel covered so as to exclude the air, and the jar or box placed in a dry place, secure from frost, till the fruit is wanted for use.—(*Id.*)

*Principles of Vegetation*.—At the British Association in Bristol, Eng., Mr. O. Webb Hall read a communication "On the acceleration of the growth of Wheat." He called the attention of the meeting to a statement of facts, by which it would seem that the usual period allotted to the occupation of the ground for a crop of wheat might be very materially abridged. At an average, this might be estimated at ten months, though twelve, and even thirteen, were not unusual, and eight might be considered as the shortest period for the ordinary winter wheat. By a selection of particular seed, and a choice of peculiar situation, wheat sown early in March has been, on different occasions, ripened before the middle of August, a period scarcely exceeding five months. Mr. Hall considers it an unquestionable law of vegetation, that the offspring of a plant of early maturity seeks to become so likewise, even when placed in unpropitious circumstances, and that it recedes with reluctance from the condition of its parent. Hence the seed of a crop which has been ripened in five months has a better prospect of producing another crop equally accelerated than that from a crop which has been longer in ripening. He also asserted that the acceleration of a crop was farther promoted by thick sowing, which likewise might be considered advantageous in checking and stopping the mildew.

Dr. Richardson referred to the remark of Humboldt, that in South America the wheat crop was ripened in ninety days from the period of sowing, and stated, that about Hudson's Bay this period was only seventy days. He suggested the probable advantages that might arise from importing seed from the latter country for the purpose of furthering Mr. Hall's views, but this gentleman stated that he had found that seed imported from a distance (and he had tried some from Italy) was liable to become diseased. As connected with the subject of acceleration of the growth of seeds, Professor Henslow mentioned results of experiments which he had tried upon seeds of a species of acacia, sent by Sir John Herschell from the Cape of Good Hope, with directions that they should be steeped in boiling water before they were sown. Some of these were kept at the boiling temperature of three, seven, and seventeen minutes respectively, and had yet germinated very readily in the open border, whilst those which had not been steeped did not vegetate. It was suggested that these facts might lead to beneficial results, by showing agriculturists that they may possibly be able to steep various seeds in water sufficiently heated to destroy certain fungi or insects known to be destructive to them, without injuring the vital principle in the seed itself. Mr. Hope mentioned a practice common in some

parts of Spain, of baking corn to a certain extent, by exposing it to a temperature of one hundred and fifty degrees, or upwards, for the purpose of destroying an insect by which it was liable to be attacked. Dr. Richardson mentioned that the seeds sold in China for the European market were previously boiled for the purpose of destroying their vitality, as the jealousy of that people made them anxious to prevent their exportation in a state fitted for germination. Upon sowing these seeds he had, nevertheless, observed that some few of them were still capable of vegetating.

[The floriculturist may gather from this some hints which may be of importance. It is well known that a large portion of the Calcutta, and many of the New Holland and Australian seeds, which are often received in this country from these places, do not vegetate, particularly the acacias and other kinds of seed with hard shells. By steeping them in water, subjected to the boiling temperature, according to the experiment of Prof. Henslow, perhaps they may be made to grow with perfect facility. It is a fact, not unknown, that the seeds of the *Ipomœa Quamoclit*, or cypress vine, will not vegetate freely unless steeped in boiling water for a few minutes. If this mode should succeed, it will enable us to add many of the beautiful plants of the East Indies to our collections by means of the seed. We hope some of our friends will try the experiment, and let us know the result: we shall ourselves try several kinds in this manner.—*Cond.*]

## ART. II. Foreign Notices.

### ENGLAND.

*London Horticultural Society*.—At the meeting of the Society, Dec. 6, 1836, fine specimens of the *Poinsettia pulcherrima* *Graham* were exhibited by Mrs. Lawrence: this plant, since its introduction to England from Philadelphia, has been propagated, and is now probably to be found in all the fine collections about London. From the garden of the Society was exhibited a great number of chrysanthemums, among which were ten of Mr. Wheeler's seedlings, mentioned by us in our i. p. 139. *Euphórbia jaquiniaeflora*, a new species, was also exhibited.—(*Cond.*)

*Genus Ribes*.—In Loudon's *Arboretum Britannicum* upwards of forty species of this genus are described, and thirty figured. It is stated, in a late number of the *Gardener's Magazine*, that the *R. aureum* is a very desirable species, as is also the *R. niveum*, both probably hardy in our climate.—*Cond.*

*Dahlia Shows*.—The shows of this magnificent flower have never been so gorgeous as during the past year. The exhibitions of the Sheffield Horticultural Society, the Bath Royal Horticultural and Floricultural Society, and that at Salt Hill, Windsor, have probably surpassed all others in the kingdom. At the former, a large tent, upwards of one hundred feet in length, and twenty in width, was filled with the blooms. The most successful exhibitors were Mr. Widnall, and Mr. Brown, of



Slough: The prizes were given at the Bath Royal Horticultural and Floricultural Society, in the following order:—

## FIRST CLASS.

*First prize.*—For the best forty-eight blooms, a silver tankard, value ten guineas.

*Second prize.*—For the best forty-eight blooms, a silver tea-pot, value six guineas.

## SECOND CLASS.

*First prize.*—For the best thirty-six blooms, a pair of goblets, value eight guineas.

*Second prize.*—For the second best thirty-six blooms, a silver sugar basin, value five guineas.

## THIRD CLASS.

*First Prize.*—For the best twenty-four blooms, a silver salver, three guineas.

*Second Prize.*—For the second best twenty-four blooms, a silver sugar castor, value two guineas.

## FOURTH CLASS.

*First Prize.*—For the best twelve blooms, a pair of butter-boats, value five guineas.

*Second Prize.*—For the second best twelve blooms, a silver cup, value two guineas and a half.

## FIFTH CLASS.

*First Prize.*—For the best nine blooms, a silver fish slice, value two and a half guineas.

*Second Prize.*—For the second best nine blooms, a pair of silver ladles, value one and a half guineas.

## SEEDLINGS.

*First Prize.*—For the best seedling, a pair of salts, value a guinea and a half.

*Second Prize.*—For the second best seedling, sugar tongs, value one guinea.

At the Sheffield Horticultural Society, Mr. Widnall received the highest prize, of the value of £15, another of £7, and one of £4.

Among the varieties which gained prizes are many of the same which were grown in the gardens of Boston and New York the past year; among others we notice the *Bride of Abydos*, *Beauty of Cambridge*, *Douglas's Criterion*, *Cedo Nulli*, *Metropolitan Perfection*, *Widnall's Venus*, *Beauty of Camberwell*, *Mrs. Wilkinson*, *Springfield Rival*, *Countess of Liverpool*, &c.—(*Flort. Cab.*) [Our readers will see from this, to what extent the cultivation of the dahlia is carried, and the valuable prizes which are offered as an inducement to produce superior specimens of blooms. It is from this liberal encouragement that we owe so much for the splendid varieties of this plant. New and beautiful kinds, the first season they are offered for sale by the fortunate grower, command from £1 to £10 sterling a plant. This ready sale and good price induces the cultivator to exert himself to procure superior ones every season. Mr. Widnall appears to have carried off more prizes than any of his competitors at the various shows; he having gained last autumn premiums, at the different Floricultural Exhibitions, of the value of nearly five hundred dollars.—*Cond.*]

*Dodds's Mary Dahlia.*—This is stated in the *Gardener's Magazine* for December to be the finest dahlia shown in England in 1836. It was grown by Mr. Dodds, a great lover of dahlias, gardener to Sir George Warrender. Its form is superior, and at all the shows where it has been exhibited, it has been acknowledged as the finest in its class that has ever been raised. The petals are cupped and white, and most delicately tipped with rose pink.—*Cond.*

## ART. III. Domestic Notices.

*Crocus in Water.*—Those who grow bulbs in glasses, forcing them for winter cultivation, may produce a very pretty and varied succession in the use of other roots than the hyacinths and narcissi. Soon as these latter have past their flowering, (which will be about the middle of January to February with the single ones, and those put into the glasses the fall previous,) the beautiful varieties of *Crocus vernus* may be substituted. The delicacy of foliage, the pure white sheathing envelope at its base, and the exceedingly minute fibrous roots, together with the elegance of the flower, renders it an agreeable change in winter flowering, and a conspicuous ornament for the mantel. The writer having procured some roots as late as January 9th, planted most of them in earth, except a fine large individual, which he placed in a bulb-glass, which had been already used for a hyacinth. In twenty-eight days the one treated with water had nearly filled the glass with its fibres, and produced its first two golden flowers. The warmth of the room, sixty degrees Fahrenheit, expands them without the aid of the sun. The others have scarcely emerged their "emerald beaks" from the soil. This striking difference may prove a valuable hint to admirers of hardy and easily forced bulbs, and perhaps prove a novelty in their cultivation. Besides, the advantage which these little convenient bulbous roots possess over most others, renders the experiment most successful. Scarcely any other retains its power of developing its flowers after being kept in an unvegetating state as does this. I presume that were they deposited in a cool, dry, and perhaps dark situation, their time of flowering might be retarded several months. This, however, would not be desirable, as these daring and hardy harbingers of mild weather are among the first gladsome blossoms that gild or empurple, with their blue or yellow petals, the deserted walks of the garden, striving with the still earlier *Galánthus nivâlis* (snow-drop) to put on a smiling appearance amid the keen winds and lingering snows of a tardy spring.—*Philocrocist*, Feb. 9, 1837.

*Astrapæa Wallichii.*—Among the many floral treasures that you have noticed in the vicinity of Boston, I do not observe that you mention the celebrated *Astrapæa Wallichii*, which ought to be in every collection that has any pretension to richness or beauty. Before me is an umbel of flowers of this truly magnificent plant, of which I annex a faint description, which may be gratifying to those who have never seen it. The leaves of the plant are very large, roundish, heart-shaped, from one to one and a half feet in diameter—flowers umbellate, of a scarlet orange color, with five convolute petals about one and a half inches long—stamens twenty-five, united into a tube, and protruding a half an inch from the corolla, (belonging to *Monadélphia dodecándria*;) fifty-six of these are inserted into an involucre, and forms a disk of from four to five inches in diameter, which hangs from the extremity of the shoot by a footstalk about fifteen inches in length; each shoot will produce from one to five such umbels, according to the strength of the plant. This is the third winter that it has blossomed here, and has always attracted great attention. A plant of it only eighteen months old, in the (present) very rare and select collection of J. B. Smith, Esq., of this city, has forty-two such umbels of flowers in bloom and about to open, and will be a picture for several weeks to come,—exceeding in beauty and splendor any thing of the kind I ever witnessed, showing that a large plant, under good treatment, will be in flower the whole winter season.—*Yours*, R. B., *Philadelphia*, Feb. 6, 1837.

*Mimulus cardinalis*.—The very beautiful *Mimulus cardinalis* does not seem to require so much moisture in its treatment as the other showy varieties do: it is one mass of beautiful scarlet flowers.—*Id.*

*Monthly cabbage Rose*.—Did you ever hear of the monthly cabbage rose? They have it about Philadelphia; it is truly the king of roses, blooms freely and profusely during the summer, and the hotter the weather the finer the flowers. It is exactly like the old cabbage rose in shape and size, and only a shade darker; the foliage and growth partakes of the hybrid varieties, but essentially differing from them in being a perpetual bloomer. If you have it not get it forthwith,—if you repent your purchase, charge me double for your magazine.—*Yours, Rhea, Philadelphia, Feb. 9, 1837.*

*Culture of the Sugar Beet—Manufacture of Silk and Cotton*.—I have sanguine hopes that the sugar beet culture will succeed and flourish with us as it now does in France. Silk and the sugar beet, I learn from the best authority from France, are the all engrossing objects of culture at this time in that country. There even the cake of the beet which remains after pressing is stated to be worth more for cattle than the roots in their original state, being more condensed and less watery. It is evident that great and most decisive improvements have been made in France, which have turned the scale entirely, since Count Chaptal and Sonard were concerned in its manufacture. For then, even in that country, its manufacture could not be sustained with all the encouragement which a protective system and high prices could afford; but then, according to Mr. Iznard, only 2 lbs. of sugar could be produced from 100 lbs. of beet; but now 6 or 7 lbs. is produced, and in Silesia, it is said, 10 lbs. are produced from 100 lbs. of roots, which quite alters the case—now it progresses astonishingly. Sugar is a food, one of the most solid, nutritious, wholesome, and economical of all the necessaries of life; inasmuch as the whole tribe of fruits, even the refuse of our orchards, however acid and austere, may be converted at once into the most palatable and wholesome supplies of food for man, by the addition of sugar. Also the most insipid and tasteless articles which we consume as our food and drink. Its antiseptic qualities are well known in the preservation of meat, &c.

I have great expectations in regard to silk and its culture among us. Look but at the improvements already made in its manufacture. At Nantucket I have seen the looms which will weave, in finished style, *pongees* at the rate of two and a half inches in a minute, and those who know best there are the most sanguine. We have only to carry these same improvements into every branch. It is vain to prescribe bounds and to tell where improvements are to stop. They must pervade every department, from the commencement of the culture till the perfect fabric is completed, and every invention must be sought after to abridge labor, and to overcome its high price in our country. I am confident that success will crown our endeavors, beyond any reasonable doubt, as in all things else we have attempted. Let me here just state how, by the ingenuity of our citizens and their enterprise we have overcome all obstacles in regard to cotton. Even it is stated, at this day, that the spindles of the throwing machines for silk in Piedmont, and where the invention first began, perform but three or four hundred revolutions in a minute, while in England they perform from eighteen hundred to three thousand in the same time. But the spindles of our machines for cotton, in America, on the same principle, are now made to revolve about five thousand times in a minute. Twenty years ago, the Waltham Manufacturing Company put out all their cotton yarn to weave in private families, and the cost of weaving No. 14 yarn into cloth thirty-seven and a half inches wide, was from eight to twelve cents a yard, which is equal to the average price which the

same goods have sold for the last five years; now, by improvements in the power-loom, the same cloth is wove for five-eighths of a cent a yard, and a girl will tend two looms, but occasionally three, and each loom will weave of the same quality of cloth from forty to forty-five yards in a day of twelve hours. The improvements in spinning are even as great. At this day, in these factories, a girl tends two hundred and fifty-six spindles, which will spin one million three hundred thousand yards of No. 14 yarn in a day of twelve hours, (equal to about seven hundred miles,) which is equal to one thousand five hundred and forty-eight hanks, or one hundred and ten pounds. To do this on hand machines twenty years ago, in twelve hours, would have required upwards of five hundred girls. My authority for these statements is first-rate, Dr. Hobbs, the agent of that company.—*Respectfully, your friend,*  
*William Kenrick:*

*The double Ayrshire Rose.*—This beautiful and desirable variety, which has been called by some cultivators the hardy tea rose, is every way worthy of extensive growth. It is a rapid climber, produces its flowers freely, and is perfectly hardy. It should be found in every good collection.—*Cond.*

*The yellow noisette Rose.*—Since writing our remarks in our last volume respecting this variety, and its proneness not to open its buds, we have learnt that it produces its beautiful blossoms in the neighborhood of Philadelphia, without any uncommon care, budded upon stocks of the common Boursalt rose. This stock, from its rapid and robust growth, imparts to the scion a vigorousness which it will never attain on its own bottom, and the buds open as freely as the common noisette. We hope our friends will try this method, and inform us respecting its success.—*Id.*

*Forced Beans.*—During the past fortnight, an abundance of string beans have been produced at Mr. Cushing's, Belmont Place: The first crop is now nearly all gone. These were raised in the pit mentioned by us in another page. By successive sowings they can be produced the whole winter season.—*Id.*

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#### ART. IV. *Queries, Criticisms, &c.*

*In publishing the names and characters of the Camellia*, care should be taken to specify whether the names are from English or French catalogues, otherwise you will bring discredit and confusion upon us. I see that *C. japonica* var. *speciosa* is said to be a showy single delicate red;—with me it is the most splendid, large and double, of all the parti-colored sorts, and the flowers remain on the plant in perfection from four to six weeks; color rich crimson and pure white—*peoniflora* shape, and a China variety. I am confident that with attention, and having access to such a collection as Mr. Wilder's, your remarks must be very valuable to every amateur and cultivator in the United States. You should also state which are single, semi-double, or double, and the knowledge which Mr. W. possesses on the subject will enable you to state accurately whether they are of English, French, German, or Chinese origin. You will have observed that the colors of those from China are more pure and brilliant than those that have originated in Europe, or this country. In fact, I am inclined to believe, that within the space of five years the American varieties will far excel those of Europe; and to describe them will take one full volume of your handsome Magazine.—*Yours, A. B. C., Philadelphia, Feb. 1837.*

[We are happy to have the advice of our correspondents; and when they find us careless in our descriptions, or wrong in giving the names, of plants, nothing will give us more pleasure than to be corrected. Our correspondent, A. B. C., is, however, in this instance, in error himself. We profess some considerable knowledge of the different varieties of the camellia family, possessing, as we do, a collection perhaps only second to any other in the country, and, embracing nearly all the fine kinds: a large part of them have flowered, and we are always particular to note down any peculiarities of a plant, as also to find out its origin. This, together with access to all the fine collections in the vicinity of Boston as well as New York, has enabled us to speak with confidence in regard to any of the varieties. It has always been our rule, long since adopted, when describing a new variety, as they are now so numerous, to note its origin, if known, whether French or English, &c.]

No variety called *speciosa* has ever been described by us or any of our correspondents, to our knowledge, as a showy *single* delicate red: we have seen it in flower in collections the past month, and though not much parti-colored, it was one of the most splendid double varieties, and the flowers, as our correspondent states, remained on the plants in perfection several weeks. We have always known it to be of Chinese origin, and the *C. Rawesiana* of some English collections. Our correspondent has undoubtedly read in some of the numerous agricultural papers the description he alludes to, but not in our Magazine. If we have overlooked it, he will point out to us in which volume and in what page.

Of the Chinese varieties we have repeatedly observed that the colors were much purer than the English seedlings. There have been no such whites raised as the old double and the fringed white, or such reds as the *imbricata*, *speciosa*, *myrtifolia*, &c. In this country, however, *Flôysis*, as a red, equals any Chinese kind. We have no doubt but the American seedlings in a short time will excel those of England.—*Cond.*]

*Plants in flower during the winter months.*—In your number for February you say, “without the camellia, how barren would be our green-houses during the inclement weather of our long and tedious winters.”

I have now two bouquets *before me*, containing some of all, and abundance of most of, the following kinds in full bloom:—

*Pæonia Moutan* *papaveracea* var.

*Banksia*, splendid.

*Calla æthiopica*.

*Acacia armata*.

“ *longifolia*.

*Primula sinensis* [*prænitens*], purple and white, in profusion.

*Aloe margaritifera* [*Haworthia*].

“ *variegata*.

*Verbena* [?] the purple.

*Pelargonium quercifolium*

“ *comptum*.

*Gilia capitata*.

*Cantua* [*Gilia*] *coronopifolia*.

*Fris chinensis*, beautiful.

*Daphne odora*.

*Amaryllis Johnsoni*.

*Cineraria maritima*, purple [?]

“ ? yellow.

*Xeranthemum fulgidum*.

Myrtle-leaved orange in full flower.

Common orange and lemon, &c.,

with two hundred ripe fruit.

*Lachenalia quadricolor*.

Six varieties of *Camellia*.

I have not been able to get out to my green-house, from ill health, but I have no doubt there are ten other plants in bloom. I only notice those *before me*, sent in to-day.

I am for variety, as you will see, and it has been my practice for forty years. You are sure then of always having something to amuse you. I am speaking of small houses, where there is from two hundred to four

hundred square feet of glass. *Masses of the same flowers are preferable; they are far more splendid.*—*Yours, respectfully, J. Lowell, Boston, Feb. 10th, 1837.*

[It gives us great pleasure to receive correction from such a source; and although our remark was intended to apply to the comparative beauty of green-houses before any of the splendid varieties of camellias were introduced, and at the present moment, now that hundreds of kinds expand their blossoms, we might be understood, by some of our readers, as meaning that there are but few flowers in bloom of any kind in mid-winter. This, however, is not the case, as will be seen by Mr. Lowell's remarks above, and as in any good collection there is always something in flower. But camellias have made the display at this season doubly grand, and when the fine kinds of heaths are introduced and cultivated, (and we are glad to perceive that much interest is taken in this family by amateurs,) we may anticipate a greater succession of elegant flowers. In addition to camellias and heaths, a great portion of the New Holland shrubs are in bloom: few, however, of the latter are yet introduced to our gardens. Our thanks are due to Mr. Lowell for his remarks.—*Cond.*]

*Grafting Camellias à la Blaikie.*—I have had ten years' experience of the graft à la Blaikie, that is, with the end of the scion in a bottle of water, for camellias, and never succeeded but once. I will give any man one dollar a graft for every one he will raise for me, and will furnish the stock and the scion for the experiment.—*Yours, respectfully, J. Lowell, Boston, Feb., 1837.*

*Poinsettia pulcherrima.*—Are you not mistaken in saying, that *Poinsettia pulcherrima* was in flower at Mr. Wilder's? I did not see it there. I believe I have the largest, and it has not shown signs of flowering. It is a bad plant to carry through the winter.—*Id.* [Our correspondent has probably, from hasty reading, confounded the *Poinsettia pulcherrima* Graham, the *Euphobia Poinsettia* of our gardens, with the *Poinciana pulcherrima*, a very different and widely distinct plant, and of which we are not aware that Mr. Wilder has a specimen; certainly not of any size. The plant in the rare collection of our correspondent is the largest we have ever seen.—*Cond.*]

#### ART. V. Massachusetts Horticultural Society.

*Saturday, January 21st, 1837.—Exhibited.* From M. J. Loring, sweet apples, the name unknown. From the Hon. E. Vose, Easter beurré and Lewis pears; also, Hubbardston Nonsuch and Marygold apples, all fine specimens. From Messrs. Winships, the *Shepherdia argentea*, or Buffalo berry; the fruit of this has an agreeable and pleasant taste.

*January 28th.—Exhibited.* Branches of the *Shepherdia argentea*, of Buffalo berry of the Rocky Mountains.

*February 4th.—Exhibited.* From S. Downer, beurré Diel, Passe Colmar, and beurré Rance pears; also, Ortleypippins and Pomme d'Api apples. From E. Bartlett, a very excellent specimen of the Chaumontel pear. From Wm. Marsh, Quincy, Lewis pears.

**February 25th.—Exhibited.** Priestly, pound, Red-streak, Paradise, Sheep-nose, and Vandervere apples, from B. V. French. Pears, the name unknown, from D. Snow, Medford.

The shows of the Society the present winter have not been so interesting as usual. There has not been a flower of any kind presented; last season there were several fine shows of camellias.

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**ART. VI. *Meteorological Notice.***

**FOR JANUARY.**

JANUARY was a cold month; snow fell in the early part of it, and succeeding this there were several severe cold days. The mean temperature of the month, as will be perceived by our table, was considerable lower than January last, 1836. The northerly and north-westerly winds were prevalent, and, a major part of the month, were very brisk. The depth of snow has, fortunately, prevented that destruction to many plants which is generally so inevitable when they are exposed to the full influence of the blasts and cold of winter.

**THERMOMETER.**—Mean temperature, 20°—highest, 48°; lowest, 9° below zero.

**WINDS.**—N. nine days—N. E. eight—E. one—S. E. two—S. two—S. W. one—W. three—N. W. five.

**Force of the Wind.**—Brisk, nineteen days—light, twelve.

**Character of the Weather.**—FINE, seventeen days—FAIR, eight—CLOUDY, six.

**Snowy**, four days.

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**ART. VII. *Obituary Notice.***

**Death of Mr. Cunningham.**—Intelligence of the death of this distinguished botanist has lately been received at Sydney, New South Wales. He was sent out as colonial botanist, and was murdered in the interior of that country, by the savages. He had wandered away from an expedition, which he accompanied, in search of some plants, and was never seen afterwards; but from intelligence received from some of the natives, it was discovered that he had been mistaken for an enemy and killed. His death is much regretted by all who knew him; he was a most able botanist, of a kind and obliging disposition, and was endeared to all who had the pleasure of his acquaintance. His brother, Mr. A. Cunningham, now at Kewgardens, has given some account of his death in the *Gardener's Magazine* for November.—*Cond.*

## ART. VIII. Faneuil Hall Market.

		From	To			From	To
<i>Roots, Tubers, &amp;c.</i>		\$ cts.	\$ cts.	<i>Pot and Sweet Herbs.</i>		\$ cts.	\$ cts.
Potatoes :				Parsley, per half peck,.....		25	
Common, { per barrel,....	1 50	1 75		Sage, per pound,.....		17	20
	62½	75		Marjoram, per bunch,.....		6	12
Chenangoes, { per barrel,....	2 00	2 50		Savory, per bunch,.....		6	12
	75	1 00		Spearmint, per bunch,.....		6	
Eastport, { per barrel,....	2 50	3 00					
	1 00	1 25		<i>Fruits.</i>			
Turnips: common,				Apples, dessert :			
per bushel,.....	75	1 00		Common, { per barrel,....	1 50	2 00	
French, { per barrel,....	1 50				75	1 00	
	50	75			2 50	3 00	
Onions :				N. Y. Pippins, { per barrel,....	1 50	2 00	
per bushel,.....	1 25	1 50			1 00	1 25	
red, { per bunch,	4	6		Russets, { per barrel,.....	2 00	2 50	
white, { per bunch,	4	6			1 00	1 25	
Beets, per bushel,.....	75	1 00		Baldwins, { per barrel,....	2 00	2 50	
Carrots, per bushel,....	75	1 00			1 00	1 25	
Parsnips, per bushel,.....	75	1 00		Golden Pippins, per bushel,....	1 50	2 00	
Salsify, per bunch,.....	12½			Bellflower, per bushel,....	1 50	2 00	
Horseradish, per pound,....	12½	17		Pears :			
Radishes, per bunch,.....	17	25		St. Germain, per dozen,...	50	1 00	
Shallots, per pound,.....	20			Passe Colmar, per dozen,...	none.		
Garlic, per pound,.....	14			Chaumontel, per half peck,....	50	75	
				Winter Katin, per peck,...	50	75	
<i>Cabbages, Salads, &amp;c.</i>				Baking, { per barrel,.....	3 50	4 00	
Cabbages : per dozen,					1 50	2 00	
Savoy,.....	50	75		Quinces, per bushel,.....	none.		
Drumhead,.....	1 00	1 50		Cranberries, per bushel,....	6 00	8 00	
Red,.....	1 00	1 50		Pine Apples, each,.....	25	37½	
Cauliflowers, each,.....	25	50		Grapes: (foreign,) per pound,			
Lettuce, per head,.....	10	12½		White Malaga,.....	25		
Celery, per root,.....	12½	25		Purple Malaga,.....	20		
Spinach, per peck,.....	50			Berberries, per bushel,....	none.		
				Oranges, { per box,.....	2 25	2 50	
<i>Squashes and Pumpkins.</i>					25	50	
Canada, per pound,.....	none.			Lemons, { per box,.....	3 00	3 50	
Winter crookneck, per pound,	8	10			25	37½	
Lima, per pound,.....	none.			Shaddocks, each,.....	25		
West India, per pound,....	none.			Chestnuts, per bushel,.....	4 00	5 00	
Pumpkins, each,.....	12½	20		Walnuts, { per barrel,....	4 50	5 00	
					2 25	2 50	
				Almonds, (sweet) per pound,...	12	14	
				Filberts, per pound,.....	4	6	
				Castana,.....	3	6	

REMARKS. The month up to this date has been open and quite mild for the season. Prices of the market productions remain, with a few exceptions, the same as our last. Potatoes are sufficiently abundant to supply the demand, and no doubt there is enough stored to last the spring through without the prices advancing from their present rates. The stock of turnips is diminishing, and prices have slightly advanced. Onions are not so plentiful, and sell more readily than at our last. Carrots, &c. are as abundant as usual at this season. Horseradish is brought in now of fine quality. Radishes still come to hand slowly: some of the turnip-rooted kinds have been brought in; these, however, at this season, do not sell very readily, as they have not that handsome



appearance of the long-rooted sorts; in the summer they answer very well. Cauliflowers occasionally come to hand, but not in any quantity. Of Brocolis we have seen none this winter. Lettuce is now more plentiful, and very handsome heads of the curled Silesia are of fine size. There is no celery of any consequence in the market; such as is to be had is very small, and scarcely fit for the table; it is for the interest of marketmen to raise this excellent vegetable to greater perfection.

We have never known the time when squashes have commanded the prices that they now do. It certainly is a singular anomaly to find vegetables selling at the same rate that provisions are, and this, too, at a time when the latter are uncommonly high; yet, within the past week or two, some few of the common crooknecks, not any way remarkable for their quality, have been sold at our highest quotations. We have, as yet, no arrivals from the West Indies.

Apples are quite plentiful, and prices moderate, not having advanced, as is generally the case, so late in the season as this. We have yet on hand excellent bellflowers, and golden pippins in prime order. The Chaumontel pears, and a kind called the "Winter Katins," are all that are now to be had; the latter is a small hard pear, breaking, quite inferior. What pine apples are in the market were brought from New York; but they are poor. Of oranges and lemons there has been several late arrivals, and they are now quite plentiful; they came in prime order. Grapes are nearly gone,—those left on hand are inferior. Chestnuts are about out of the market.—*Yours, M. T., Boston, Feb. 21st, 1857.*

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## HORTICULTURAL MEMORANDA

### FOR MARCH.

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#### FRUIT DEPARTMENT.

*Grape vines* in green-houses and graperies will be now pushing rapidly: in some they will probably be showing very distinctly their flower-buds, and in others just bursting their eyes, according to the temperature at which the houses are kept. Begin to syringe them twice a week, and cut out all weak shoots. Keep them tied neatly up to the trellis. Continue to plant cuttings in hot-beds, and those that were put in last month should be attended to and not suffered to be checked in their growth. Plants of the Isabella and other American varieties may be pruned this month.

*Peach trees, in pots*, may be placed in the green-house: those put in last month will now be about flowering, and should have plenty of air.

#### FLOWER DEPARTMENT.

*Dahlia roots*: plant them now in hot-beds, to forward them for early blooming; separate the old roots, and plant each tuber in a pot. Sow the seeds now to produce new varieties.

*Auriculas* will now be showing their flower-buds, and should be allowed all the benefit of the air that is admitted, if in green-houses; and if in frames, which is the proper place for them, the sashes should be taken wholly off every fine day. Sow the seeds at this time.

*Polyanthus* seeds should be sown this month in pots or boxes.

*Camellias* should be repotted, those that need it, if they have not begun to make their growth: continue to water them freely, and syringe them overhead twice a week. Attend to inarching this month.

*Azaleas* should be freely watered and syringed this month.

*Calceolarias*: repot those that require it; and water them more freely as the plants get stronger.

*Anomatheca cruenta*: set out the bulbs of this plant, now, in pots, in the green-house.

*Gladiolus natalensis*: set out these now for flowering in the month of June and July.

*Ranunculus* roots may be planted this month: those planted in the fall, and the beds covered with leaves or straw, will require to have the same taken off the latter part of the month, if mild.

*Hyacinth* beds should be uncovered the latter part of the month.

*Tulip* beds should have part of the covering taken off, as soon as the weather is mild and pleasant, which is generally about the 20th.

*Annual seeds*: sow many sorts now for early blooming: where there are good hot-beds, plant globes, balsams, coxcombs, &c.

*Ericas* may be propagated by cuttings at this season: the seeds should also be planted now.

*Green-house* plants of all kinds should be now propagated, when it is wished to increase a collection.

*Tiger flowers* should now be planted, to bloom early in the season.

*Carnations*, in small pots, in frames, should soon be shifted into pots of a larger size, in which to bloom.

*Hydrangeas*: now is the time to propagate these, as recommended in our article in our last number.

*Amaryllises* about to flower should be repotted. This is a good time to sow seed to raise new varieties.

*Roses* should now be liberally watered and syringed; look over the plants, and, if any aphid or lice are on them, give them a good fumigating with tobacco-smoke.

#### VEGETABLE DEPARTMENT.

*Rhubarb roots*, standing in beds, in the garden, may be forwarded by placing over each a large flower-pot or a half-barrel, according to the strength of the roots, which should be covered with horse-dung in a fermenting state: the warmth will cause the shoots to start immediately.

*Tomato* seeds should be sown.

*Egg plant* seeds must now be planted.

*Peas*: get these into the ground the first mild weather, which is generally about the 15th or 20th.

*Cucumber* plants raised last month will now require attention.

*Celery seed* should be sown in pots for a succession.

*Asparagus beds*: towards the latter part of the month, top-dress them and fork up the surface.

# THE MAGAZINE

OF

## HORTICULTURE.

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APRIL, 1837.

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### ORIGINAL COMMUNICATIONS.

**ART. I.** *Notes on some of the Nurseries and Private Gardens in the neighborhood of New York and Philadelphia, visited in the early part of the month of March.* By the CONDUCTOR.

Two years since we made a hasty visit to several gardens in New York and Philadelphia, and our notes, taken at that time, were soon after given to our readers, in a series of articles in our first volume. We had hoped that when we again visited the same places it would have been at a later period in the season, when there would be more to note, and when our remarks would not be confined to in-door cultivation alone. As it is, however, we lay our present hasty sketches before our readers, still hoping that the opportunity will soon occur when we may have the pleasure of describing the richness of the hardy collections of the same gardens and nurseries, together with others in their vicinity, which are the subject of our present remarks.

The progress of gardening, particularly that department generally termed floriculture, has been extremely rapid the past two years; indeed we have been astonished at its increase in New York and Philadelphia. A more general taste appears to pervade these cities than in Boston and its neighborhood. We have before stated, (vol. i, p. 162,) to what, in a great degree, this was owing; and a farther study of the cause of the general prevalence of a taste for flowers in the former cities confirms us in our opinion. We hope, however, that the practice we then alluded to may soon be done away with, and that Boston and its vicinity may yet keep pace with her sister cities in the scale of horticulture, as she does in many other sciences. We were exceedingly

happy to perceive the great prevalence of a real love of flowers, which exhibits itself in the cultivation of plants, in parlors, in New York and Philadelphia; pots of flowering plants, and of many fine kinds, make their appearance in the windows of the houses much more frequently than in Boston.

In New York many new floricultural establishments have lately sprung up, and the number of gentlemen's country residences, with green-houses, &c. attached, have increased very rapidly within the past two years. In Brooklyn, the number of beautiful gardens is, we venture to say, greater in proportion to the population than in any city in the Union; we were surprised to find so many elegant places where, a short time since, scarcely more than one existed. A few years will find this young city surpassing even its great prototype on the opposite side of the river.

We commence our remarks with the New York gardens, and give them without any reference to the time of our visits. We intended them, at first, merely for our calls at gardens and nurseries, but, upon an after thought, we concluded to make them a separate paper. They are, however, written in the same manner as our "calls," from brief notes, taken upon the spot, and afterwards filled up at leisure.

*Nursery of Mr. Thomas Hogg, on the Bloomingdale Road.*—Mr. Hogg is celebrated for his fine collection of geraniums, which probably surpasses, in the number of new and rare varieties, any other in the country; the plants are exceedingly well grown, and were, when we saw them, covered with flower buds. They are grown in a house by themselves, as we are convinced they always should be, and are not drawn up, but have that dwarfish and robust habit which is said to distinguish the collections of the English cultivators of this tribe. The taste for geraniums in New York is rapidly extending, and it is only from the great demand for the new and rare sorts, which are eagerly sought after, that Mr. Hogg is enabled to import plants which cost a great sum of money, and the importation of which is attended with less success than almost any other tribe. We hope to see the same taste for the new and elegant varieties of geraniums, which are yearly raised in England, prevalent in the vicinity of Boston. Certainly but few families of plants can boast of equal splendor of colors and delicacy of pencilling which is to be found in the more superb varieties. We found at this early season but a few sorts in bloom; among those, however, which had expanded, we noticed the following: *Amelia*, *Atlas*, *Virginus*, rose spotted, *Celestia*, *Adelinæ*, *Boll's General* Washington, *Lord Denman*, *Bouganvilleidnum*, *purpurea cærulea*, *Clarissimum*, *Duchess of Clarence*, *Seneca*, *Exquisite*, clouded, *Erranium*, *Lord Brougham*, *Dennis's Queen*, *Anne Maria*, *Weltjie's Sydney*, *Admiral Napier*, *Sesostriis*, *Tigrinum*, *Congestum*, &c. Of these, which

we thought distinct and possessing fine properties, are Dennis's Perfection, fine dark rose, with superb petals; Amelia, light rose, large flower, with delicate spots; Gen. Chasse, very bright; Lord Denman, rich deep crimson, with dark spot; Boll's General Washington, very handsome; Virginius, rose, with a pretty spot; and Bouganvilleidnum. The trusses of several, if not all, of these varieties, are very perfect. There will be a most splendid display in the course of three or four weeks; and as a larger part of Mr. Hogg's fine new sorts will not be sold until next fall, there will be a fine show during all the spring. Mr. Hogg, jr., who spent the winter of 1835 in London and vicinity, purchased many fine kinds; among others, Dennis's Perfection, which was selling at three or four pounds sterling a plant.

Mr. Hogg's plant houses, as we stated two years since, consist of detached buildings, erected without any regard to external or internal beauty, but merely for the shelter and propagation of plants. In a very low house without flues, Mr. Hogg has a large number of double white and other common camellias planted in the ground for propagation. From these both layers and inarchings are taken. In another house, where were a great number of the more common plants, we noticed a *Wistaria Consequana*, which young Mr. Hogg informed us, to our surprise, had bloomed finely the past year; it has made a vigorous growth, and the branches extend twenty or thirty feet; it is planted outside of the wall of the house. We were not aware that it had ever blossomed in any collection in the country. We should be most happy to see it in flower.

In the stove, which is heated with the apparatus described in our second volume, p. 248, by Mr. Downing, of Newburgh, we found a variety of plants. A seedling amaryllis had just expanded; *Lantana Sellowii* was blooming profusely: this is the handsomest of all the lantanas that we have ever seen. Small plants of *Poinsettia pulcherrima* were displaying their scarlet bractes. The apparatus for heating cannot be better described by us than it has already been by our correspondent. We consider it a very good method for warming a house, but not, that we could perceive, preferable to the common level system of copper pipes. The first cost of erection is as great, and if nothing is saved here, we see no material advantage it has over other systems; it takes up, however, little room, but the pipes, which are cast iron, must, we believe, run above the walks of the house. The consumption of fuel is nearly the same as in the systems generally adopted. We have heard it stated to be greater; but, as will be seen in the course of our remarks, we think this an error. We have had many inquiries respecting the mode of making the barrel water-tight around the base of the cylinder; but this is easily done with proper cement: a groove is made in the tub or barrel, and

this is cemented so as to be water-tight. Mr. Hogg is now having them made with the barrel or boiler of cast iron.

In the principal green-house we found but few plants in bloom: the great demand for bouquets renders it next to impossible for the nurserymen to keep a flower expanded. We noticed *Correa speciosa*, *Acacia verticillata*, *Diosma ciliata* and *capitata*, *Boronia alata*, and a species of *Pomaderris*. The camellias were out of flower. Mr. Hogg has a tolerable collection of alstræmerias, a tribe of plants which we have scarcely ever seen grown to any perfection.

Connected with the nursery grounds of his father, Mr. James Hogg has opened a seed-store in the Bowery, at No. 365. We have no doubt but what the increasing taste of the city will create a demand for seeds and plants, particularly in that part in which he is located, and where there must have been a great want of such an establishment. We wish him success in his new vocation.

*T. Bridgeman's Seed and Flower Establishment, Broadway.*—Mr. Bridgeman is well known to most of our readers as the author of several little gardening publications, which have run through four or five editions. Though formerly for many years a market gardener, in the vicinity of New York, his principal business now is that of the seedsman; and from his extensive knowledge of vegetables, he supplies a great number of the market gardeners with their seeds. The green-house attached to his garden is principally filled with the common kinds of roses and other flowers, more for the purpose of cutting bouquets than for selling the plants. We hope the present volume of our Magazine will contain some articles from Mr. Bridgeman's pen. With what conversation we had with him, and from what we have learnt through his works, we are confident that he is well versed in the cultivation of vegetables, and any remarks of his would be exceedingly interesting to our readers.

*Noe & Boll, Florists, 42d Street.*—This is an establishment which has lately sprung up, and is conducted by two Frenchmen. We had the pleasure of seeing Mr. Boll at our visit, and we found him a man who understands his profession. This establishment is famous for its collection of roses; and the intimate acquaintance of Messrs. Noe & Boll with the principal nurserymen and florists and amateurs of Paris, and a residence in the vicinity of that city, has enabled them to procure all the fine kinds. The collection of geraniums is also excellent, and Mr. Boll has raised several very beautiful seedlings; we have mentioned as in flower at Mr. Hogg's, Boll's General Washington; he has raised others equally fine, and has some which have not yet bloomed. There is here also a good collection of cactuses, and among others the *Echinocactus Eyriësti*, which will bloom

the present spring. Of camellias there is a tolerable collection, although the plants are not large; among others that are new, Mr. Boll pointed out to us *imbricata alba* and *candidissima*, both said to be very splendid whites.

We here saw, for the first time, a great number of plants of the *Potentilla fruticosa*, with quantities of fruit which had the appearance of strawberries; they are very ornamental, and worthy of a place in any collection. The monthly carnation, so called, both here and at every nursery garden we visited, were to be seen in great numbers; they are sold in immense quantities to plant out in the summer season. Messrs. Noe & Boll have a very excellent collection of hearts-ease of named sorts; we saw but one or two in bloom, but these were very beautiful.

Messrs. Noe & Boll have just completed a new house, about one hundred feet in length, with a single stage, for roses, stocks, &c. It is built without much regard to finish, but merely as a place of cultivation and propagation. The other houses are three in number, viz. a green-house, geranium house and stove, the latter being quite small. They are all, however, well stocked, and contain a great number of fine plants. In geraniums this collection comes next to Mr. Hogg.

*Mr. Harrison's Amateur Garden.*—This garden is situated on the eighth avenue, near the North River, and not a great distance from Messrs. Noe & Boll's establishment. The proprietor is well known as the raiser of Harrison's yellow rose, the *Camellia japonica* var. *Harrisoni*, and several other handsome varieties. Mr. Harrison has only a small green-house, but it is overcrowded with seedling camellias, which have nearly attained a flowering state. We saw three or four new kinds which had opened for the first time, but they did not possess any extraordinary beauty. Mr. Harrison informed us, however, that he had had a new white open the past winter, which was quite an addition. It was something in the way of the pompone, but looser in its formation; another year will decide its qualities better.

Mr. Harrison appears to practise hybridization without any regard to the mixing of two particular sorts to produce an intermediate variety; but whenever a flower opens on plants that generally produce seed, the stigmas are impregnated with the pollen of some sort, in order to fertilize them. Seeds are saved from the warratah, pompone, rosea, Chändleri, single red, &c.; and Mr. Harrison is unable to say from what two his new white was raised, as he never keeps any record of the male parent. The seedlings are designated by certain marks, to know whether they were from the warratah, pompone, &c.; but the male parent is not known to any of the varieties.

Mr. Harrison's white variety has but one fault, and that is its shy blooming; we had remarked this in a plant in our possession,

but supposed it arose from ill health, until he informed us himself that it was a spare bloomer. Some of his other new kinds are in the vicinity of Boston, and will probably bloom next season. Another year will undoubtedly produce many new sorts.

*Country Residence of Dr. Wagstaff, near Yorkville.*—Attached to the flower garden of Dr. Wagstaff is a small green-house, which we found crowded with a very excellent collection of camellias; among them we noticed several of Mr. Harrison's and Mr. Floy's seedlings, and a great number of the best English and Chinese varieties. *Myrtifolia*, Hume's blush, punctata, and some others were in flower. The plants were well grown, and some of them reached nearly to the glass. We understood the gardener to say that Dr. Wagstaff intends, the coming season, to enlarge the house so as to allow more room for his present collection, as well as to add a great number of new varieties. With the ample means with which Dr. Wagstaff is possessed, it would give us great pleasure to see him erect a spacious conservatory in the place of his present green-house; his fine camellias would then show to advantage: one something in the style of Mr. Becar's, of Brooklyn, would afford sufficient room for the collection, and at the same time be a great ornament to Dr. Wagstaff's residence.

*Mrs. Livingston's Flower Garden, Third Avenue.*—Passing out on the third avenue to Harlem, we observed, just beyond Yorkville, a green-house on the left; we entered it, and found it belonged to a Mrs. Livingston, who cultivates quite a collection of geraniums, roses, &c. The green-house is built with a span-roof, and has a double stage in the centre, with a walk around it. We noticed no rare plants; but observed here, as we did at most all the flower establishments in New York and Philadelphia, a great stock of the scarlet monthly carnation.

We did not stop long enough to make many inquiries respecting the establishment, but understood from one of the gardeners that it was carried on by the lady mentioned above. As we passed out of the garden, we perceived that it contained a goodly number of tree roses, the tops of which were bound up with straw. This is a very good idea: as the warm days and chilly nights of March are apt to keep the sap in a continual state of action, by repeated freezings and thawings, and thus destroy its vitality.

*Floy's Nursery, Harlem.*—Mr. Floy has at last removed the whole of his nursery out to this place; the high price of land in the city will eventually drive all nurserymen out of its precincts. A street is now being cut through Mr. Hogg's garden, and Mr. Bridgeman's has nearly shared the same fate. Mr. Floy has, however, not been subject to any of these troubles; but has sold his estate for building lots,—plants being of too little value to



grow them where land commands the price it does in New York city; and having a fine piece of ground at Harlem already covered with hardy shrubs and trees, it was only necessary to erect a green-house for his tender plants. This he has done the past year, and the whole collection was removed to it in the autumn.

The green-house is about forty feet long and twenty wide, and is built with a blank roof to the north, of one third the width of the house. There is only a back stage in the house, and a wide front shelf. The collection of plants, excepting the camellias, is not very extensive, as we believe Mr. Floy has not given his attention so much to this department as to fruit trees and hardy ornamental shrubs, of which there is a good variety cultivated in this establishment. The camellias, which consist principally of his own seedlings, are much reduced, and the plants, from having been confined in the city, have not a very healthy appearance. We found a few kinds in flower, and among them was the original plant of *Flòyi*, which had just expanded three or four of its last blooms of the season. The beauty of this variety has been doubted by many; but after seeing this same plant bloom three successive seasons, and in all its various stages, we must still say that, in our opinion, it is superior to all the other red camellias that have ever been raised. The old plant is now quite large, and has flowered finely every year; Mr. Floy has had many liberal offers for it, but has concluded to keep it as a standard plant for his own collection. We saw, at our present visit, the same new variety in bloom (*corúscans*) which we mentioned two years since; but a better acquaintance with foreign camellias has induced us to alter our opinion, which we then expressed, of its merits. The plant is, however, yet weak, and perhaps the present specimen was not a fair one to judge from; but its color is not so brilliant as we at first supposed it to be, and this was its greatest peculiarity;—still it will rank with the best sorts. *Clintònia*, *bostònia*, *Hosáckii*, *Stevèni*, *sanguínea*, *Wárdi*, *fúsca* and *Margarètha* were also showing their last blossoms; the latter is a very pretty variety, a semi-double flower, of a lively pink, with long petals. Mr. Floy has pretty much given up the raising of camellias from seed, and has consequently produced no new sorts of any beauty since the spring of 1835.

We inquired of Mr. Floy, Jr., respecting the parents of the *Flòyi*; and though he was not positively certain, it was his belief, that it was produced from seed of the double striped that had been fertilized with the double red; in the foliage, it has the character of the former variety very distinctly. It is worth the while of amateurs and others, who raise new varieties, to keep a record of their parentage, as such data will afford some considerable information upon the subject of the mixture of colors; and will tend to show to those who are engaging in this delightful species

of horticultural improvement, what two sorts will produce a superior variety.

Among the other plants we did not observe much that was new. *Calceolària pàllida*, a very handsome species, was in bloom. *Alonsòa integrifolia*, a much more desirable species than *incisifolia*, was flowering beautifully. *Acàcia verticillàta*, and other common plants, were also blooming.

Mr. Floy has a most excellent collection of dwarf peach and nectarine trees; they are entirely free from the borer, canker and gum, and have fine heads; he has several budded on plum stocks. The soil is light and suited to their growth, and we have never seen any in the vicinity of Boston so handsome. His other trees are very good, but we had no time to walk through the grounds. Mr. Floy, Jr. is pretty well acquainted with fruits, and is now giving much attention to their growth.

**ART. II. *Remarks on the Production of new varieties of different Flowers from Seed.* By AN AMATEUR.**

I HAVE read with considerable interest your excellent remarks in the March number of your Magazine, (p. 97,) “On the Production of new varieties of Flowers, from Seed, by Cross Fertilization.” This is, indeed, a most interesting branch of floriculture; and to one adapted to it by the necessary patience and perseverance, it is decidedly the most interesting department. Such a person will judge of the probable effect to be produced by a combination of the qualities of two different flowers belonging to the same genus; he selects the plant that combines the most good qualities for his mother plant, and then gathers the *farina* from the anthers of another, whose fine color, good form, or other good quality he wishes to add to, or mingle with, those of his mother plant, and applies it to the pistil of that plant; as the fruit sets, he carefully watches it, guarding it from accident, &c. until its seed is matured, when he secures that. His next business is, at the proper season, to plant the seed, giving it bottom heat, or shade, or both, as it may require. The seed vegetates, grows; he pricks the little plants into small sized pots, gives them the necessary attention and protection, repotting them as they grow, until at last the expanding flower bud blushes into life the new and lovely addition to the flower garden. During the whole of this process, a most singular *affection* is felt by the operator for his little nurselings. However

rich and splendid the *money purchased* plant may be, it was bought for a price, *with money*, and money will buy it again; but the favorite *seedling* was not so bought, nor will it be thus parted with until its increase shall have secured to its originator all he desires of it. It may, indeed, be compared to the feeling a man has for the slave purchased by his money compared with that he has for his own child. The writer of this once had a rose bush raised by him from seed; for three years he had watched and cultured it, when on the fourth it showed a single bud, and this bud was to announce to him whether he had produced a new and beautiful rose, or whether all his labor and watching had been thrown away. One morning the bud had just opened the calyx sufficiently to show the color of the flower, which indicated something very fine; the bud was also very promising in form. But during the day, some rude hand plucked the bud off; and when this was discovered, the feelings excited by it could scarcely be conceived to be the result of so apparently trifling an occurrence. Many a tear was shed on the occasion, at least. I mention this to prove the intense interest that attaches itself to the raising of new plants from seed.

I agree with you, generally, in all your remarks on this subject. You seem not to be aware, however, of the extent to which the practice has been carried in Baltimore. There is, at this time, an immense number of seedlings of all the plants you name in the collection of Samuel Feast, in this city, and all of them the product of very judicious cross impregnation. Of the superb new rhododendrons, he has several hundred seedlings, impregnated by the farina of each other, and of all the finest azaleas, and vice versa, the leaves and wood of which indicate a great variety of character. None of these have bloomed yet, and of course we cannot say what they will be, but you may be able to judge of the prospect. Of camellias he also has several hundred seedlings, many of them now beginning to show flowers of great promise; all of which have had the advantage of cross impregnation from the very best sorts. Of roses, I think I may say with safety, he has at least five hundred specimens, all of which promise very favorably. Besides which, he has many blooming plants of excellent character, produced by him years ago. I am unable to name more than one or two, though I know he has a considerable collection. The *Kürtzii*, a most beautiful tea rose, and *Master Burke*, the most *dwarfish* rose, I believe, in existence, occur to me at the moment as a sample. When three years old, the *Master Burke* had fine full blown and very double flowers; and the half of a common hen's egg shell would have covered the whole bush without touching it. This I saw and assert to be a fact. It is now seven or eight years old, flowers regularly every year, affording wood for prop-

agation, and has never yet attained two inches in height, nor its whole top exceeded one or one and a half inch in diameter. The rose is about the size of a buckshot. In pelargoniums he has also been quite successful, producing many fine sorts, and now possessing many in progress. He also has large quantities of seedlings of other plants, to give a list of which would tire you.

I mention these facts for your information, as you seem to think little has been done in this department, except in New York. There are others here, also, that have produced a great many new plants by this process; the Kúrtzii camellia is an instance. John Feast also has a very large collection of seedlings of all these fine plants. The Huntingdon dahlia, and many others produced here, will compare with some of the best of any country. Excuse this hasty note.

Yours,

AN AMATEUR.

*Baltimore, March 20th, 1837.*

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ART. III. *Observations on the Management of the Auricula and Polyanthus during the Spring Months.* By J. CLARK.

SOME months since I communicated to you, under the signature of "An Old Florist," (vol. ii. p. 129,) a few observations respecting the state of the gardens in our vicinity; and at the same time promised to give your readers a little information respecting the cultivation of fancy flowers, as collected from my own experience during several years' practice in that delightful amusement. This being the season of the year that I used to watch, from day to day, the progress of my auriculas and polyanthuses, the subject is called fresh to my mind. I shall first give you my opinion respecting the importation of the plants, as I find there is scarcely a fine flower, and but a very few of the most common sorts, in the country.

The first object is to procure the plants; perhaps my ideas on that subject may be very erroneous, but such as they are I shall offer them to your readers. There is no place in England where auriculas and polyanthuses are cultivated so extensively, or with so much success, as in the neighborhood of Manchester, and that is the place to procure them; good varieties can be purchased at a cheap rate: some scarce sorts fetch a high price

—I should not think of giving more than two or three shillings per root, [from fifty to seventy-five cents.] The best time, I believe, to remove them, is the latter part of October, or any time during the month of November: I would have them very dry before packing; indeed, they are always kept in that state during the winter months. I would have them packed in dry moss, and as close as possible, to keep them from being injured by dampness. I once received a box of plants from Manchester that had been packed between forty and fifty days; the package had been sent by the way of London to me, and had, by some mistake, been left at the coach office there, more than a month. I saved, however, nearly all of them. The voyage from Liverpool to Boston is not often longer than that time, and by having them at that season, they would arrive here the latter part of December; and, by good management, I believe they might be received in good order. They should be potted as soon as possible in some good rich light earth, and set in a cool part of the green-house, though I do not think the green-house a proper place to grow them in; they do not require artificial heat: indeed I consider it very hurtful to them. I formerly kept mine in a cold frame during the winter and spring months.

We will now suppose ourselves in possession of a collection of these beautiful flowers, and the season the month of March. My practice was to have some good rich earth prepared, say equal parts of dung from an old cucumber bed, and sheep manure, and good rich maiden earth, with about one-tenth of the whole of coarse road grit or sand; this ought to lay twelve or eighteen months, and be frequently turned, taking care after turning it to throw it into a ridge, to carry off the rains. With this prepared compost I always top-dressed my plants. I used to break the surface of the earth on the pots, and if there were any offsets, removed them carefully, and potted them into small pots by themselves; if they were very small, I generally put two or three round the sides of the pot, and labelled them to correspond with the name of the parent plant. Then fill up the space occasioned by the removing of the earth with some of the prepared compost.

From the time the plants are top-dressed they will grow very fast; water may be given freely, but this, in some measure, will depend on the state of the atmosphere: should the weather be frosty, of course water must be used sparingly. They should also now have the benefit of warm showers that sometimes occur at this season, should they even last for several hours, so that the roots at the bottom of the pots may receive the benefit of them. I did not cover my plants very warm during their inactive state; I think a single mat was sufficient, but perhaps in this climate more covering may be necessary. It should be observ-

ed, that the frosty weather is not injurious to them if they are dry; but from the time they are top-dressed till they are in bloom, they require a warmer covering at night, or they will receive a check in their growth that they will not get over during the whole season; and the chance is, that many of the flower buds will be spoiled. The lights should be drawn off every fine day, to admit air, or the plants will be drawn up weak.

With this treatment they will grow up very rapidly; and by the latter end of April, many of the plants will have put forth their beautiful blossoms. As the flowers appear, the plants should be removed to a situation where they will have the sun till ten o'clock, and where the flowers can be protected from the rain, as that, of course, soon spoils them. At some future time, I will endeavor to describe a stage, such as is generally made use of during the blooming season. Should the sun shine very warm in the middle of the day, the lights may be drawn up, and a thin mat may be thrown over them; but give air behind, and in the afternoon uncover them again. They require a little care at this season of the year, say for two months, if you wish to have a fine show of flowers; but during the remainder of the year, they are but little trouble. Should you think these few observations worthy a place in your useful Magazine, they are at your service; and in a future number I will endeavor to give some further information respecting repotting, &c.

Yours, &c.

J. CLARK.

*Boston, March 7th, 1837.*

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ART. IV. *Observations on the Camellia and its Varieties, with some Account of its Introduction into Great Britain and this Country.* By M. P. WILDER.

(Continued from Vol. II, p. 96.)

30. *Camellia japonica* var. *Woodsi*. Chand. & Booths. III.  
*Mr. Wood's Camellia.*

THIS is a large flower, measuring, when fully expanded, from four to five inches in diameter: the color is a dark rose, inclining to crimson; the formation various; sometimes the petals are broad and regularly arranged to the very centre; at other times it has the

warratah form, and resembles, both in color and shape, a provins rose. Raised by Mr. Chandler, in 1819.

31. *Caméllia j. var. althææflóra.* *Chand. & Booth's Ill.*

*Hollyhock-flowered Camellia.*

Another seedling of Mr. Chandler's, raised in 1819: the color of this flower is a very dark, shining crimson; the petals are rather long and recurved when in full flower; the outer rows, two or three in number, are broad and heart-shaped; the inner ones are arranged in a loose tasselled manner, interspersed with the stamina, and usually striped with white. It is of short duration.

32. *Caméllia j. var. Welbánkii.* *Chand. & Booth's Ill.*

*Luteo albicans.* *Bot. Reg.*

*Capt. Welbank's White Camellia.*

This is an old but most beautiful white variety, inclining to a yellowish hue. The form is that of *Pomponia*; the petals round and irregularly arranged, with the stamina distributed through the whole flower. It is a Chinese variety, and was imported in 1820.

33. *Caméllia j. var. aucubæfólia.* *Loud. Hort. Brit.*

*Aucuba-leaved Camellia.*

A good, double, dark rose-colored camellia: a Chinese variety, with variegated foliage, resembling, in that respect, the *Aucuba japonica*, from which it receives its name.

34. *Caméllia j. var. speciòsa.* *Chand. & Booth's Ill.*

*Ravensiana* of the Gardens.

*Ravensiana, Róssi.* *Fr. Cat.*

*Ravens variegated Camellia.*

This is the speciòsa of the English: the color is of the darkest crimson, and, when the flower is well developed, it is one of the most magnificent of all the camellias. It is of the warratah formation; the outer rows of petals are broad and flat, the inner ones folded and irregular, and very thickly set together, the whole frequently blotched and striped with white. An imported camellia from China.

35. *Caméllia j. var. speciòsa.* *Fr. Cat.*

A large dark crimson single camellia; a good variety for seed, and not inferior in beauty to many of the double sorts.

36. *Caméllia j. var. flórida.* *Chand. & Booth's Ill.*

*Cluster-flowered Camellia.*

Flórida resembles the French corrállina, described at No. 21, (vol. ii, p. 94,) and probably is the same variety. A beautiful flower.

37. *Caméllia j. var. Flóyi.* *Floy's Cat.*

*Mr. Floy's Camellia.*

This is an American seedling, raised by Mr. Floy, of New

York, whose name it bears. It is in all respects one, if not the **most**, remarkable seedling camellia that has ever been brought to notice. The foliage is larger than any other variety; the leaves, when full grown, measuring six and a half by three and a half inches. The flower is of a clear fine rose color; the petals heart-shaped, well arranged, and when luxuriantly grown, measure nearly half a foot in diameter. It may be properly called a giant when compared with any other camellia.

38. *Caméllia j. var. Wárdii. Floy's Cat.*

Another of Mr. Floy's seedlings. The color of the flower is a brilliant crimson, almost a scarlet; it has two or three rows of outer petals, with a spherical well filled centre. It is universally admired.

39. *Caméllia j. var. Clintónia.*

Also raised by Mr. Floy. It is very similar to *dianthiflora*.

40. *Caméllia j. var. virginia. Floy's Cat.*

A good double well formed camellia, of a light rose or pink color, and very beautiful in the bud. Raised by Mr. Floy.

41. *Caméllia j. var. Augusta. Eng. Cat.*

*Dérnii. Fr. Cat.*

Augusta is an English seedling. The flower is of a dark crimson color, very full and prominent, much after the style of the old double red.

42. *Caméllia j. var. árdens supérba. Fr. Cat.*

A new French variety. The color is a rosy pink; the guard petals round and bold, and spotted with white; the inner ones proceed from the stamina, and are striped with the same color. Resembles *Caméllia j. var. spléndens*.

43. *Caméllia j. var. gállica álba. Fr. Cat.*

*French White Camellia.*

This flower is of that peculiar and delicate color known as the French White. It is a semi-double flower, the petals much cupped, interspersed with large stamina, and frequently slightly touched with pink.

44. *Caméllia j. var. Travérsii mutábilis pleníssima.*

*Camellias de Bolwiller.*

If the account of this flower is correct, it is surely an anomaly in the annals of the camellia. It is thus described: "A very full flower, with a great number of petals lying regularly like tiles upon one another, of a violet or purple color, and adorned with stripes rather paler." I think, from the appearance of a flower that partly opened with me last year, and from a well expanded one that flowered in Mr. Sweetser's collection at Cambridgeport, the present season, the description must be exag-



gerated, and that the purple or violet color is only to be seen when the flower is on the decline, and caused by the action of the air upon it.

45. *Caméllia j. var. oxoniensis. Fr. & Eng. Cat.*

A most splendid variety, and probably the best of all the rose colored camellias. The flower is quite large and full, the petals gradually decreasing towards the centre, and there faintly striped with white; sometimes the petals are in a loose mass, after the manner of the English *élegans*, to which it bears a strong resemblance.

46. *Caméllia j. var. conchiflora álba. Eng. Cat.*

*White Shell-flowered Camellia.*

*Conchiflora álba* is said to have been raised from the seed of the single white, by Mr. Smith, of Islington. It is of the purest white color; the petals round, bold, and perfectly cupped, retaining their shape and consistency until the flower drops from the bush. It is, however, quite persistent, and remains several weeks in perfection.

47. *Caméllia j. var. Tryphosa única álba. Fr. Cat.*

A French seedling of great beauty, raised at Bolwiller, in France, and presented me for dedication. The flower is quite large, full and round, the petals gracefully arranged after the manner of *Welbánkii*, and filled with scattering stamina. It is of the most lovely white color, of the pompone formation, and decidedly the best of any thing in this way.

48. *Caméllia j. var. compacta. Eng. Cat.*

This is a small double white camellia, seldom measuring more than two and a half inches in diameter, and of no great merit.

49. *Caméllia j. var. Lindleyi. Fr. Cat.*

The color of this flower is of the most exquisite pink, the petals long and few in number, but well arranged. A desirable variety.

50. *Caméllia j. var. conchiflora. Loud. Hort. Brit.*

*Shell-flowered Camellia.*

*Conchiflora* is an old but desirable variety, of a dark rose color. The petals are few, but systematically arranged like shell work, from which circumstance it derives its name. A Chinese variety.

51. *Caméllia j. var. Rosa sinensis. Lodd. Bot. Cab.*

*China Rose Camellia.*

This is a seedling raised by Mr. Chandler, of Vauxhall, and merits a place in every collection. It is a free flowering variety, of a pale rose color, and distinctly marked with dark colored

veins; the outer petals are quite large, and the flower, when expanded, presents almost a flat surface.

52. *Caméllia j. var. concinna*. *Chand. & Booth's Ill.*

*Chandler's Elegant Camellia.*

*Concinna*, in point of regularity and beauty, may be numbered among the very best of the caméllias. Mr. Chandler, who raised it, describes it thus: "The flowers are of a fine rose color, very elegantly formed, and open well. When fully expanded, they measure rather more than three inches in diameter, and are little inferior to *exímia* or *imbricàta*, the petals being nearly as numerous, and arranged with equal nicety over one another, from the circumference to the centre.

53. *Caméllia j. var. crassinervis*. *Chand. & Booth's Ill.*

*Kénti. Fr. Cat.*

*Mr. Kent's Camellia.*

This is supposed to be a Chinese variety. The flower resembles the warratah so strongly, that when detached from the bush it is difficult to perceive any difference. The habit and foliage of the plant, however, is quite dissimilar to the warratah, and is at once distinguished from it.

54. *Caméllia j. var. Park's rose stripe*. *Trans. Lond. Hort. Soc.*

A Chinese variety introduced by the London Horticultural Society, in 1824. It is a lovely camellia, of a most delicate pale pink color, blotched and striped with white. The flowers are above medium size, double, well formed, and decidedly fragrant.

Yours,

M. P. WILDER.

Dorchester, March, 1837.

ART. V. *On the Production of Roses from Seed, and some Remarks respecting the treatment of the Yellow Noisette Rose.*  
By J. W. RUSSELL, Superintendent at Mount Auburn.

FROM the perusal of a French catalogue of plants, I find the rose has been multiplied to an astonishing extent the last three or four years. Every florist, or cultivator, in France, I am told, is very emulous to excel his competitor in the raising of new va-

rieties from *seed*, plants from which are annually brought into notice, or flowered, for the first time; they are then presented to competent judges, to decide upon their good or bad properties, and if the decision is in favor of the flowers, the plants that produced them are not unfrequently sold at a very exorbitant price. By cross impregnating a variety of sorts with each other, new and splendid varieties would be obtained. This could be done in America by any person who has a knowledge of the formation of flowers, and the parts of fructification, with equal success. But it is necessary to know that the seed will not vegetate in less than a year after it is gathered, i. e. if the seed is sown in the spring of the year, the plants will not make their appearance before the following spring; therefore it cannot be reasonably expected that the cultivator will know the results of his experiments in less than three years from the time of first putting the seed in the ground; but, by sowing every year, after the first he will have a regular succession of seedling plants annually showing their flowers when the first three years have expired. This may appear to be rather a tedious process; but whoever wishes to raise new varieties of the *rose* from seed, must conclude to wait with patience and hope for the *best*. All the new varieties of dahlias, camellias, pelargoniums, &c., are obtained from seed, by the same process as recommended for the rose, with this difference—the camellia seed will vegetate in two or three months, the dahlia and pelargonium seed in a week or ten days.

The yellow noisette rose is very highly spoken of by those who have had the pleasure of seeing it flower in great perfection. There are a number of amateurs in this vicinity that have it, and are seldom, or ever, able to obtain a perfect flower: the reason of this deformity may in a great degree be occasioned by the want of nourishment at the time when the flowers are opening: this is, in my humble opinion, the precise time that every attention is necessary to help the plant with proper stimulants to put forth its blooms, the flowers being large and very full of petals, closely set together; the plants ought to be well supplied with food from the first swelling of the buds to their full *expansion*; and if all this has been regularly attended to, and the result a failure, I know of no other means to resort to but to insert the buds into the *Boursault*, *Greville*, or *Multiflora* roses, which are probably the best stocks that can be easily obtained for this purpose.

Yours,

J. W. RUSSELL.

Mount Auburn, Cambridge, }  
March 20, 1837. }

**ART. VI.** *Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some account of those which it would be desirable to introduce into our Gardens.*

*Edwards's Botanical Register*, or Ornamental Flower Garden and Shrubbery. Each number containing eight figures of Plants and Shrubs. In monthly numbers; 4s. colored, 3s. plain. Edited by John Lindley, Ph. D., F. R. S., L. S., and G. S. Professor of Botany in the University of London.

*Curtis's Botanical Magazine*, or Flower Garden Displayed, containing eight plates. In monthly numbers; 3s. 6d. colored, 3s. plain. Edited by Sir W. J. Hooker, L.L. D., F. R. A., and L. S., Regius Professor of Botany in the University of Glasgow.

*Harrison's Floricultural Cabinet*, and *Florist's Magazine*. In monthly 8vo numbers, with a plate; 6d. each. Conducted by Jos. Harrison.

*The Horticultural Journal*, *Florist's Register*, and *Royal Ladies' Magazine*. Dedicated to the Queen, Patroness, the Rt. Hon. the Earl of Errol, President, and the Vice Presidents of the Metropolitan Society of Florists and Amateurs. In monthly 8vo numbers, with a plate; 1s. each.

*Notes relating to Floriculture.*—A great number of plants, raised from seeds, brought home from the Columbia River, by Mr. Nuttall, the botanist, are in the possession of Mr. Buist, of Philadelphia. Among them are some of the *Calochorti*, and a few of the same things that were discovered by the lamented Douglas. A species of *Cactus*, and a new plant, quite singular in its habit, throwing out long slender stoloniferous shoots, also brought home by Mr. Nuttall, are thriving well. Under the care and skill of Mr. Buist, we have no doubt they will soon be brought to a flowering state, and their names decided upon.

*Mr. Scott*, late of the Exotic Nursery of Mr. Knight, King's Road, has been engaged by Mr. Buist to take charge of his establishment. The skill of Mr. Scott in propagating rare plants is well known, and we congratulate Mr. Buist in his success in procuring so able a person. Very few first rate gardeners are yet to be found in the country; and it is with pleasure that we now announce the anticipated arrival of Mr. Scott.

We are yet without the receipt of either of the works at the head of this article, except the two latter: in these only florist's flowers are figured; but as they may interest many of our readers, we take pleasure in noticing them.

## DICOTYLEDONOUS, POLYPETALOUS, PLANTS.

### *Ternstroemiaceæ.*

#### CAME'LLIA.

Since our last notice of new kinds that have bloomed the past winter, under this head, some very handsome varieties have opened. At Mr. Wilder's, *Tryphosa*, a new white, expanded one flower. We did not see it, but were informed that it is a very desirable sort. It is something similar, in form, to Greville's red, having that free and loose arrangement of the petals, but, in color, a creamy white. At Mr. Buist's, we saw, at our late visit, a bud of a seedling plant, which, to appearance, promised to be a white flower. It will probably have expanded by the time this goes to press. Mr. Buist has already a fine seedling, which he is now propagating extensively, for a stock, before it goes out, as the phrase is. It is a very splendid one. We have, in another page, noticed a new white, raised by Mr. Harrison, of New York.

### *Caryophyllaceæ.*

Barron's *Miss Neville* picotee is figured in the *Horticultural Journal* for January. It is a sport from one of the same name, and there is little doubt it will prove permanent by propagation. Instances of sporting in carnations are frequent, but rare in picotees. The ground is white, with a few scattered but distinct touches of scarlet near the edge of some of the petals.

*Miss Clifton Pink.*—This is the name we have given to a seedling we raised the past season. It is of first rate excellence, and will not suffer in comparison with any prize flower.

### *Compositæ.*

Two new dahlias are figured in the *Horticultural Journal* and the *Floricultural Cabinet*. In the former, one called *Sir John Sebright*; a very superior self, of a claret color, with cupped petals. In the latter, one called *Marsh's Paragon*, a parti-colored one; the ground color sulphur, with a pink edge: the flowers are very perfect, with cupped petals. Under our Foreign Notices some information will be found respecting the dahlia exhibitions in England in 1836.

### *Verbenæ.*

#### VERBENA.

##### ? *Tweediana.*

This is the name of a plant figured in the *Floricultural Cabinet* for January. The flowers appear in racemes considerably larger than the *chamædrifolia*, and of a deep red color. It grows erect, about two feet high, and blooms freely. Propagated easily from cuttings.

## REVIEWS.

ART. I. *Translation of a Memoir entitled "Beitrage zur Lehre von der Befruchtung der Pflanzen,"* (Contributions to the Doctrine of the Impregnation of Plants.) By A. J. C. CORDA. Published in the 17th Vol. of the *Nova Acta Physico-medica Academiae Cæsar. Leopold.-Carol. Naturæ Curiosorum*. Breslau & Bonn: 1835; with *Prefatory Remarks on the Progress of Discovery relative to Vegetable Fecundation*. By ASA GRAY, M. D. Read before the Lyceum of Natural History, New York, October 24th, 1836, and published in *Silliman's Journal* for January, 1837.

WE have been presented with a copy of the work, containing the above article, by the translator, and have been highly gratified with its perusal. The prefatory remarks, by Dr. Gray, evince a good knowledge of the subject, and an intimate acquaintance with the works of the authors who have written upon the vegetation and impregnation of plants.

These prefatory remarks comprise a review of the progress of the developments which have been communicated to the scientific world respecting the fecundation of plants, and the operation of the pollen upon the embryo or future plant. As this subject is one which we are confident will prove interesting to our readers, and one upon which but little is known, we shall make large extracts from this paper. The translated article itself we cannot give to our readers, as it is accompanied with two large folio lithographs, excellently executed, illustrating the action of the pollen upon the embryo, and the article would be unintelligible without these; we must, consequently, refer the reader, who wishes to see the entire paper, to Dr. Silliman's valuable *Journal*.

This paper was prepared by Dr. Gray for his own private use; but supposing it would prove interesting to the members of the Lyceum of Natural History, he was induced to lay it before them. The scientific community of this country are much indebted to Dr. Gray for his valuable translation, which he was obliged to undertake himself, as no person unacquainted with the structure and formation of the ovule, though thoroughly versed in the German language, could have given a correct translation. Its publication in the *Journal of Arts and Sciences* will place it in the hands of all American vegetable physiologists.

In our last number we gave some remarks on the impregnation

of different varieties of plants, accompanied with a retrospective view of the progress of the practice, especially in this country. We shall have occasion again to call the attention of our readers to the subject; and in the meantime, the following extracts will tend to render our remarks more intelligible and plainly understood by those who are not informed upon the subject. The practice of raising new flowers by cross impregnation has just began; and there are probably no limits to the production of varieties.

"Impregnation, in flowering plants, essentially consists in the production of an embryo or rudimentary plant within the *ovule*,\* or body destined to become the seed. Since the office of the stamens in vegetable reproduction was indicated by Grew and Ray, and afterwards clearly established by Linnæus, it has been well known that unless some grains of pollen come in contact with the stigma, impregnation does not take place. The seed-vessel may, indeed, continue to grow and ripen in the absence of pollen, and the contained ovules attain the size, texture, and (the embryo excepted) the structure of well-formed seeds; but in such cases a rudimentary plant, which is the essential part of the seed, is never produced. Respecting the immediate origin of the embryo in the animal kingdom, it is well known that three different hypotheses, being all that the nature of the case admits of, were advanced at an early period. These several hypotheses have been extended by analogy to the vegetable kingdom. According to one view a germ furnished by the pollen is supposed to be deposited in, and nourished by the ovule: according to another, the germ is thought either to pre-exist in, or to be originally formed by the ovule itself, and that it is merely excited into action by an influence derived from the pollen: and according to a third, the embryo is conceived to result from the union of a germ furnished by the pollen with another produced by the ovule.† It is hardly probable that we shall ever possess the means of absolutely proving the correctness or demonstrating the fallacy of either of these hypotheses; but it may be remarked that the first mentioned view, which was advanced at an early period, is the most difficult to be reconciled either with the phenomena of hybridity or with the manifest analogy that exists between seeds and buds; and yet recent discoveries have again rendered it the more probable hypothesis.

"Soon after the discovery of the office of the pollen, several attempts were made to explain the manner in which this substance acts upon the stigma. Some of the earlier writers, such as Geoffroi and Malpighi, seem to take it for granted that the entire grains of pollen which fall upon the stigma pass down the style quite

\* "The reader is supposed to be acquainted generally with the structure of the ovule, a subject upon which the limits of the present remarks will not allow me to enter, except to indicate the sources from which the requisite knowledge may be obtained, viz: R. Brown's paper on the genus *Kingia*, with remarks on the structure of the unimpregnated ovule; *Mém. sur la génération et le développement de l'embryon*, &c. by Ad. Brongniart in the 12th vol. of the *Annales des Sciences Naturelles*; and, particularly, *Nouvelles recherches sur la structure et le développement de l'ovule végétal*, by Mirbel, in the 17th vol. of the same work. The substance of these memoirs will be found in the more recent elementary botanical works."

† "The latter hypothesis is adopted by Ad. Brongniart with much confidence in his memoir above cited—*Dans cet espace . . . un ou quelques-uns des granules spermatisques s'unissent probablement à d'autres granules fournis par l'ovule pour donner naissance au petit globe, premier rudiment informe de l'embryo*, &c. *Ad. Brongniart in Ann. Sci. Nat.* 12, p. 264."

into the ovary; and Moreland\* suggested that the grains even penetrate the ovules and become the embryo. The latter author, who was, I believe, the first to extend the hypothesis of Leeuwenhoek to the vegetable kingdom, inquires 'whether it be not more proper to suppose that the seeds which come up in their proper *involucra* are at first like unimpregnated ova of animals; that this farina (*pollen*) is a congeries of seminal plants, one of which must be conveyed into every ovum before it can become prolific; that the stylus, in Mr. Ray's language, the upper part of the pistillum in Mr. Tournefort's, is a tube destined to convey these seminal plants into their nest in the ova; that there is so vast a provision made because of the odds there are whether one of so many shall ever find its way into and through so narrow a conveyance.' He then proceeds to record several circumstances, which are, in his opinion, confirmatory of this view; especially the manifestly tubular style of the *Crown Imperial* and some other plants, the cavity of which he erroneously considered to lead directly into the seed-vessel. This cavity, however, only exists in some compound styles, being formed by the cohesion of three or more simple styles, so as to form a hollow cylinder, and it consequently does not communicate with the interior of the ovary. Moreland also observed the micropyle (the vestige of the foramen of the ovule,) in peas and beans; he supposed it to be a perforation produced by the entrance of a grain of pollen, which, having fallen down the tube into the ovary, had at length entered the ovule and become the embryo or seminal plant.

"It was discovered, I think, by Needham, that when grains of pollen are moistened or thrown upon water, they usually burst with violence and discharge the slightly viscous and turbid fluid contained within. To this fluid the immediate agency in impregnation was attributed by Linnæus and contemporary botanists. Two opinions, however, have prevailed respecting the mode of its action upon the ovule; some writers supposing the fluid itself to be conveyed down the style to that organ, while others conceived that a peculiar action excited upon the stigma was transmitted to the ovule by a kind of sympathy. The former view appears to have been adopted by Linnæus.† The latter was sustained by Grew and several succeeding philosophers. Our actual knowledge upon this subject was, however, confined to the simple fact that the application of the pollen to the stigma was essential to the fertilization of the ovules, all the information we possess respecting the action of the pollen after it has reached the stigma being of very recent date. The earliest of a series of highly curious discoveries on this hitherto mysterious subject was announced in the year 1823. A few remarks on the structure of pollen will form a necessary introduction to our account of these interesting researches.

"The pollen, when examined by a moderate magnifying power, is seen to consist of a multitude of grains of some regular form, which is uniform in the same species, but often differing widely in different plants. It has been satisfactorily proved that these grains are composed of two coats, of which the exterior is rather thick and nearly inelastic, while the inner is an exceedingly delicate and highly extensible membrane. The cavity is filled with a fluid, which, under a powerful lens, appears slightly turbid on account of a vast number of minute granules which float in it. The existence of an inner lining to the pollen-grains was ascertained at an early period, first by Needham and afterwards by Koelreuter, and although since

\* "Some new Observations on the Parts and the Use of the flower in plants; by SAMUEL MORELAND.—Philosophical Transactions, Vol. 28, (1708.)"

† "Generationem vegetabilium fieri mediante pollinis antherarum illapso supra stigmata nuda quo rumpitur pollen effiatque eadem seminalem, quæ absorbetur ab humore stigmati, &c.—Linn. Phil. Bot. ed Stockholm. 1751. p. 91".



doubted, the correctness of their observations has lately been abundantly confirmed by the admirable researches of Ad. Brongniart and Mirbel. An account of some recent observations by the last named author is appended to his incomparable memoir on *Marchantia*, where he has also given a representation of the two coats.

"A magnifying power of two or three hundred diameters reveals the existence of two kinds of granules in the fluid of the pollen-grain. The larger kind, which are also the fewer in number, have been particularly examined by Ad. Brongniart and Brown, whose researches, made about the same time, and wholly independently of each other, coincide in almost every particular.\* These granules are peculiar to pollen, and have been detected in every plant that has been submitted to examination. They differ in shape in different plants, but are uniform in the same species. The following is extracted from the account of these granules, given by R. Brown, as they appeared in the pollen of the plant which he first submitted to examination. 'This plant was *Clarkia pulchella*, in which the pollen-grains taken from the anthers when completely developed, but before their dehiscence, were filled with particles or granules of a size varying from the 4000th to about the 5000th of an inch in length, their form being intermediate between cylindrical and oblong, slightly flattened perhaps, the extremities being rounded and equal. While examining the form of these particles floating in a drop of water, I observed that many of them were evidently in motion. Their movements were not confined to a mere change of place in the fluid, as manifested by modifications in their relative position, but there was frequently a change of form in the particle itself; and several times a contraction or incurvation was perceived near the middle of a particle on one side, accompanied by a corresponding convexity on the opposite side. In some instances the particle was seen to revolve upon its longer axis. I was convinced, from repeated observations of these movements, that they are produced neither by currents in the fluid nor by gradual evaporation, but that they pertain to the particles themselves.† The same phenomena were observed both by Brown and Brongniart, in a great number of plants of different families, with the exception that the change of form in the particles themselves was less evident when these are oval or oblong in shape, and perhaps never apparent when they are spherical. It is worthy of remark, moreover, that Ad. Brongniart observed that the somewhat cylindrical granules of the pollen of several Malvaceous plants repeatedly exhibited a double curvature like the letter S. The movements of the larger granules are never rapid, and are frequently very slow. The same motions were observed in the granules of pollen taken from recently dried specimens, and also from those that had been kept for several days and even for some months in weak alcohol; but in pollen taken from dried specimens which had been preserved some twenty, and others more than one hundred years, Dr. Brown found that, although the movements of the *molecules* or smaller particles

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\* "These granules were discovered and described by Needham as long ago as the year 1750. He even suggests that they penetrate to the ovule and form the embryo. This is not the only instance in which the observations and suggestions of this author, after having been doubted or left in obscurity for nearly seventy years, have been recently confirmed, or rendered extremely probable."

† "An account of microscopical observations made in the months of June, July, and August, 1827, upon the particles contained in the pollen of plants, and upon the general existence of active molecules in organized and inorganic bodies; by R. Brown. I re-translate from a French translation, published in the *Annales des Sciences Naturelles*, Vol. 14, p. 341; not having been able to procure the original pamphlet, which was only printed for distribution among the friends of the author, and is now very scarce."

were unaffected, those of the larger granules were scarcely evident, and often not at all apparent. According to Brongniart's observations, the movements of granules from fresh pollen were suddenly checked when put into alcohol.

"The smaller particles, or *molecules* as they are termed by Brown, were first observed by this distinguished naturalist in the pollen of *Clarkia pulchella*, mingled with the larger granules already described; and they have since been detected in a great number of species. They differ from the larger granules not only by their size, which varies from the 15,000th to the 30,000th of an inch in diameter, but also in their form, which is always spherical, and in their movements, which are oscillatory and extremely rapid. These molecules were also observed in the powder of the so called anthers of mosses and other flowerless plants, by Brown, who found, moreover, that their motions were equally vivid, whether taken from the living plants or from specimens preserved in an herbarium for more than one hundred years. Continuing these investigations, he discovered similar particles, endowed with the same motions when suspended in a fluid, not only in all forms of vegetable tissue, but also in every inorganic substance examined, except those soluble in water, or whatever fluid was employed for their suspension.\* In the year 1823, Prof. Amici, in examining with his powerful microscope some grains of pollen on the stigma of the common purslain, (*Portulacca oleracea*), observed that the grains had projected from some part of their surface an extremely slender tube, which was found to consist of the inner lining of the pollen-grain, protruded through a rupture of the external coat. Amici published an account of his discovery in the 19th volume of the *Atti della Società Italiana*, whence it was extracted in the second volume of the *Annales des Sciences Naturelles*. About three years afterwards, these tubes were observed in several plants of different families, by Ad. Brongniart, to whose admirable memoir, published in the 12th volume of the work just cited, we are indebted for the earliest and most complete account of the manner in which they originate and act upon the stigma.

"When grains of pollen fall upon the stigma they are retained either by the hairs with which this organ is often provided, or by its humid and slightly viscous surface; they slowly absorb this moisture, and, after an interval varying from some hours to a day or more, the outer coat opens by one or more points or slits, through which the highly extensible inner membrane protrudes like a hernial sac, and is slowly prolonged into a delicate tube. The diameter of these tubes does not exceed the 1,500th or 2,000th of an inch, and of course a powerful microscope is required for their examination. In some plants the grains appear to open at a determinate point, and in numerous instances each one produces two or three pollen-tubes. This happens in the genus *Oenothera*, and perhaps in all the plants of that tribe, in which the triangular grains open usually by two, and sometimes by three of the grains, and produce as many tubes. The pollen of several plants, however, (particularly in the Cucurbitaceæ,) is known to protrude its inner lining from a great number of points; and Amici has even seen as many as twenty or thirty incipient pollen-tubes arising from a single grain. Commonly, however, each simple and globular grain of pollen

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\* "For further particulars respecting this curious subject, the reader is referred to the original memoir of Dr. Brown, above cited; and also to some additional remarks on the same subject, which may be found in a French dress in the 29th vol. of the *Annales des Sciences Naturelles*. Respecting the formation of pollen, the reader should consult the memoir of Ad. Brongniart, above cited, p. 21. et seq.; R. Brown's paper on *Rafflesia*, in the 12th vol. of the Transactions of the Linnean Society of London; and the supplement to Mibel's memoir on *Marchantia polymorpha* in the *Nouvelles Mémoires du Muséum*."

produces but a single tube, which makes its appearance from whatever portion of the surface may chance to be placed in contact with the stigma. This production can hardly be considered as a mere protrusion of the inner lining of the grain, since the length commonly attained by the tube is greatly disproportionate to the original size of that membrane. It should, perhaps, be regarded as a growth of the inner coat, excited by the fluid which moistens the stigmatic surface. Yet it is hardly probable that this fluid exerts any specific and peculiar agency in the production of the pollen-tube, since it has lately been stated\* that a mixture of sulphuric acid and water causes their production in the same manner as the stigmatic surface itself, only with greater promptitude. M. Brongniart has also seen them arise from grains of the pollen of Nuphar and some other plants, when floating on water, without having been in contact with the stigma. Usually, however, water is so rapidly imbibed that the grains suddenly burst so as not to admit of their production. The stigma of one plant, moreover, is known to excite the same action in the pollen of different species, and even of plants belonging to different families. Thus, Dr. Brown applied the pollen-mass of a species of *Asclepias* to the stigma of an Orchideous plant, and found that these tubes were produced as readily as when left in contact with the stigma of the plant from which the pollen-mass was taken.

"The tubes, thus produced in contact with the stigma, penetrate its substance, not, however, by means of any peculiar channel, but by gliding between the cellulæ and along the intercellular passages which abound in the tissue of the stigma and style. M. Brongniart was able to follow them only for a moderate distance into the tissue of the style, where he thought that they terminated, and, opening at the extremity, discharged the fluid and floating particles of the pollen-grain. He conceives that these larger particles pass along the intercellular spaces into the placenta, and thence into the mouth of the ovules. Prof. Amici† has, however, recently announced that he had in several instances traced the pollen-tubes themselves quite into the cavity of the ovary; from which he infers that the immediate contact of this body with the mouth of the ovule takes place whenever impregnation is effected.

"In the autumn of the year 1831, Dr. Brown read before the Linnæan Society of London his highly interesting memoir on the *Organs and mode of Fecundation in the Orchideæ and Asclepiadææ*; which has since been published in the last volume of the transactions of that society. It is unnecessary for our present purpose to indicate the several curious and important results of the investigations of that sagacious botanist, relative to the structure and impregnation of these two families. He followed the course of the pollen-tubes, in several plants of both orders, from the stigma to the placenta, and in a single instance traced, in an Orchideous plant, some tubes or vessels of equivocal nature, quite into the aperture of the ovule. Dr. Brown remarks that these tubes had been noticed in the style and ovary of these two families many years previous to his observations, viz. in Orchideous plants by Du Petit-Thouars, as early as 1816 or 1818; and by the late Mr. Elliott in *Podostigma*, (a genus of *Asclepiadææ*), as stated in the first volume of the *Sketch of the Botany of South Carolina and Georgia*, published in 1817. Mr. Elliott adds that Dr. Macbride (since deceased) had observed the same *fibres or cords* in the style of some species of *Asclepias*. We

\* "I have met with this statement in the article *Botany*, of the Library of Useful Knowledge, but I do not know on what authority it rests."

† "Extract from a letter from Prof. Amici to M. Mirbel, dated 2d July, 1830, and published in the 21st vol. of the *Annales des Sciences Naturelles*."

have no reason to believe that in any of these instances the true origin or office of these cords was even suspected.

"In a short communication addressed to the editor of the *Linnaea*, dated Nov. 1827, and published in the fourth volume of that work, Dr. Ehrenberg gives an account of his observations on the structure of the pollen-masses in *Asclepiadæ*; and states that each grain is furnished with a cauda or cylindrical tube of great length, directed to the point where the membrane of the pollen-mass opens; which appendage he considers as analogous to the *boyau*, or pollen-tube of Amici and Brongniart.\* He supposes that these processes exist previously to the application of the pollen-mass to the stigmatic surface, which is doubtless incorrect; but Dr. Brown has observed in this family the curious fact, that the application of one portion of the pollen-mass to the stigma causes the production of a pollen-tube from every grain of the mass."

The experiments of Mr. Corda were made with the coniferous tribe.

"The following positions respecting the mode of impregnation in *Coniferae* appear to be established by these observations.

"1. The pollen-tube penetrates into the micropyle, (exostome,) and in *Pinus* the pollen-grains fall directly into it; whence the impregnation is immediate.

"2. The pollen-tube passes through the exostome into the endostome, passes through the cavity of the secundine, and arrives at

"3. The nucule; extends through the endostome into its cavity; and

"4. By the ejection of the fluid contained in the pollen-grains into the bottom of the nucule, gives the first *keim* (germ) to the formation of the embryo.

"5. The formation and developement of the embryo changes the contents of the cellular tissue of the nucule, which becomes fluid, and appears to furnish material for the growth of the embryo.

"6. The pollen-tubes remain fixed (to the *embryo-sac*) sometime after impregnation and the commencement of developement of the embryo in the latter."

ART. II. *Letters about the Hudson River and its Vicinity, written in 1835-6.* By A CITIZEN OF NEW YORK. 1 vol. small 12mo. pp. 209. New York: Freeman Hunt & Co. Boston: Otis, Broaders & Co. 1836.

THIS collection of letters, amounting to seventeen in number, was originally written for the *American Traveller*, published in Boston, and was not intended for publication in the present form at the time they were commenced; but the author states, in his prefatory remarks, that from the circulation they have had through

\* "*Linnaea*. IV. p. 95."

other papers and periodicals, having been extensively copied from the *Traveller*, he was induced to bring them out in a small volume, as they might be of use as well as prove interesting to the innumerable mass of travellers, who, either for pleasure or business, pass up the Hudson in the elegant steamers that daily, indeed almost hourly, navigate its waters.

Were it not that the author's remarks, discursive in their character, touched upon subjects coming within the scope of our Magazine, we should not spare the room to notice this volume in any other way than to announce its character, and to speak in commendation of the spirit in which it is written. Interesting as it might be to the traveller, it would form no portion of the useful matter of our Magazine, did it not contain notices of the fine gardens which exist on the borders of the noble Hudson, and, in particular, those of some of our most intelligent correspondents; we allude to the botanic garden and nurseries of the Messrs. Downing, and the amateur collection of plants of Mr. Knevels, of Newburgh. These two places are noticed in a manner which is highly creditable to the author (in whom we recognise an acquaintance,) and at the same time in justice to the respective proprietors. It is rare to see the letter writers, who are engaged by the daily presses and periodical works of this country, both at home and abroad, to scribble news and nonsense, notice the gardens in and about the vicinity of such places as they may visit. We have often looked through the letters of European correspondents, written by Americans, to find some accounts of the many splendid gardens which abound both in England and on the Continent; but, with one or two exceptions, we have never observed the least notice of any, not even the most celebrated, of them. On the contrary, the English correspondents to English Magazines are early in their notices of fine gardens, wherever found. It is therefore with much pleasure that in this small unpretending volume, written without any expectation of receiving more than the ordinary attention of newspaper correspondence, we found the notices which we have just alluded to. They are evidently written with a view to impart to the reader an idea of their extent and beauty, and at the same time to create a greater taste among the public for fine gardens, and elegant shrubs and flowers. But we proceed to give a few extracts from the volume; and, first, is a description of the residence of the editor of the *New York Mirror*, Col. George P. Morris, at Cold Spring.

"Col. Morris's house is built upon a plateau just above the village, and commands a picturesque and lake-like view of the noble Hudson to the north, with the blue range of the distant Catskills bounding the horizon. In front you have old Cro'-Nest and his subject mountains, with their map of living verdure crowning their brows and sides—the scene of Rodman Drake's exquisite poem of the 'Culprit Fay.' To the south, it enjoys one of the finest and most uninterrupted views imaginable of

West Point, the plains, buildings, and Fort Putman; and on a clear day, the parade of the cadets may be distinctly seen from the portico; and their music, echoed by a hundred hills, falls soothingly and pleasantly upon the ear.

"Altogether, this is one of the most magnificent sites for a summer residence in the United States. It possesses, in many respects, advantages even superior to those of West Point; and if a good hotel or comfortable boarding-houses were established here, it would vie with that spot as a summer retreat. I believe that it is or was contemplated by Mr. Samuel Gouverneur, one of the largest landholders in the neighborhood, to build a house of this description on the bluff just below Cold Spring, which forms the narrowest part of the Highlands."

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"The grounds are well disposed, and susceptible of the highest improvement, and if the plan which the Colonel showed me on paper be carried into effect, his residence at Cold Spring will be a little nook stolen out of paradise. I can't resist narrating a circumstance here, which shows the inconceivable stupidity of a foreign beautifier and layer out of grounds, who came here for that purpose, recommend as a man of taste, and as the ex-gardener of an English earl. Reliance being implicitly placed upon his tact and skill, he received orders to exercise his accomplishments in his peculiar line to the best advantage—things were left to his discretion and responsibility, and he had uncontrolled and *ad libitum* authority to plant, to lay out, and dispose, as he listed, for two months, last spring. Judge, friend P., of his employer's surprise and mortification, when he found that this time had been employed by his *beautifier* and *radical reformer* in cutting down and laying waste almost every thing in the shape of a tree about the premises!

"It is really astonishing how much mischief may be done in a little time by an ignorant person, even though he be the 'gardener of an earl,' and the growth of years prostrated in one hour. The only consolation left for the proprietor was, that the trees, although lofty, were only cedars, and that the circumstance afforded opportunity for the display of his taste in arboriculture, by replacing them with others of a more ornamental, choice and elegant description. At the present time, they are busy in transplanting full-grown and large-sized oaks, maples, and other forest trees, on the plan suggested and practised by a Scotch baronet named Stewart, and I have no doubt of the complete success of the experiment. In this event, the 'earl's gardener,' without intending it, has unconsciously done good; and out of much evil, benefit will have been deduced, as all transplanters of trees will have a model before them, how most safely and judiciously to manage their operations."

Hyde Park, the late residence of Dr. Hosack, is mentioned, with some other places; but we omit the remarks on this place to give the extracts containing the notice of the nurseries of our correspondents, the Messrs. Downing, of Newburgh, and to one of whom, Mr. A. J. Downing, the author states, in his preface, he was much indebted in procuring valuable information.

"The botanic gardens and nurseries of the Messrs. Downing, a little north of the village, in a charming situation, sloping gently towards the shore, and looking out from among the bright flowers and the fresh foliage over one of the sweetest of views, are by no means the least attractive portion of the suburbs of this place; and I suspect, from the celebrity which this establishment is attaining, as a commercial garden, throughout the Union, that many strangers are drawn hither by the increasing taste for

horticulture, to view the improvements in cultivation, or to draw from the rich resources of fruit and ornamental trees collected here, for the improvement and embellishment of their own estates. Although the proprietors mentioned to me that their establishment was new, and comparatively in its infancy, yet, from the vigorous manner with which it is conducted in the various departments, it must become the source of great advantages to the whole country. The proprietors appear to possess a profound knowledge, both theoretical and practical, of their profession, and a constant correspondence is maintained with scientific individuals and establishments of the same kind in Europe, by which means all the new fruits, and every thing rare and valuable to the amateur, is obtained as soon as it comes into notice. The variety of fruits cultivated in the nurseries is quite astonishing: I can only recollect one hundred and fifty kinds of apples, and more than two hundred of pears—what a treasure for the farmer and horticulturist! The proprietors pay the most minute attention to the genuineness of the sorts, and bearing trees are planted to test all the varieties. As a proof of the advantages of, and the perfection to which grafting is carried, I was shown several trees which bear annually twenty-five or thirty varieties of fruit upon the different branches.

“In the lower parts of the grounds we observed an extensive walk just formed, exhibiting a complete botanical circuit of plants, arranged in a scientific manner—a rockwork for alpine plants, and a pond for aquarian, in which the water-lilies and a number of other aquatic plants were thriving admirably. In this way the establishment will, when completed, comprise every thing desirable in its way to the botanist, the amateur, and the agriculturist. I noticed large plantations of the celebrated Chinese mulberry, grape vines, and the rarer and more delicate shrubs and plants—and among the treasures of Flora, rich collections of roses, dahlias, and other ornamental plants. In the hot-house, among a variety of curious vegetation, I was struck with the size of a huge aloe, one of those wonders of nature which bloom but once in two of the ordinary lifetimes of the human race. This specimen has, I believe, achieved more than one half its centennial period. From the hasty glance which I took through the establishment, I was unable to note more particularly those minutiae of such an establishment which, after all, must be seen to be appreciated—but I was delighted with the greenness of the hedges, of which I saw four or five kinds growing here, to test their comparative merits in this climate. Every foreigner is justly offended with our unsightly fences—why should we not appropriate to ourselves the beautiful materials which nature seems to have armed with thorns, and decked with foliage, for that special purpose. And then, what a *discord* between rail fences and green meadows, and what a *harmony* in live hedges and equally verdant fields!”

The amateur collection of Mr. Knevels, one of the best in the state, and which has been described by our friend and correspondent, Mr. A. J. Downing, in our II. p. 96, is alluded to in the following words:—

“I encountered, in my rambles in the suburbs, a very rich private collection of exotic plants at the demesne of J. W. Knevels, Esq., who, as I understand, is a zealous amateur, and has recently deprived Philadelphia of some of her boasted floral and botanical treasures, to enrich this neighborhood. There are many superb tropical plants in his range of hot-houses, more than one hundred feet in length, which I had never before seen, and many of which I had never observed specimens so fine. The large variety of camellias—the noble orange trees—the stately palms—the bread-fruit tree—the

coffee, camphor, guava, and other West Indian fruits, were thriving here apparently as if in their natural zones. If I had first seen the light of heaven in some southern clime, beneath the shade of a palm or a plantation, I might, like the Hottentot whose story is upon record, have wept at the sight of our compatriot trees; but as it was, I contented myself with admiring that refinement of mind which led a country gentleman to indulge and cultivate a taste at once so innocent, so delightful, and so instructive, as the collection and preservation of those beautiful and delicate productions, which the great Creator has scattered with a bountiful hand over the different climates and countries of the earth."

We notice that the author intends issuing another series of letters should this volume prove acceptable: we sincerely hope, if he does, he will continue to give us similar notices of other fine residences which abound on the Hudson River, and, in particular, in the vicinity of Albany and Troy.

## MISCELLANEOUS INTELLIGENCE.

### ART. I. *Foreign Notices.*

#### ENGLAND.

*Metropolitan Society's shows for the season, 1837.*—We have copied from some of the English Magazines the following list of prizes, which have been determined upon by the Metropolitan Society for the present year. We have copied it entire, that the amateur florist may see with what zeal these exhibitions are conducted, and the very liberal premiums which are offered for the best specimens that are exhibited. Until similar premiums are offered by our horticultural societies, it will be in vain to try to get up exhibitions of any interest. We hope the Massachusetts Horticultural Society will set the example here; certainly it is not wanting in zealous members to bring this about. We commend the following to their notice. The medals are—

The small Adelaide Medal, value 15s.

The large ditto, value 1l. 10s.

The King William Medal, 3l.

The small Gold Adelaide Medal, 7l. 10s.

The large Gold Adelaide Medal, value 15l.

The Gold King William Medal, value 30l.

Persons to whom any of these may be awarded, will have the option of taking two-thirds of the money, or the medals themselves; and these may be received as awarded, or allowed to accumulate, and be received in a more expensive Medal.

FIRST SHOW, THURSDAY, APRIL 27, 1837.

#### *Camellia Japonica.*

Best collection, not exceeding twenty-four plants, and not more than two alike, the King William Medal, value 3l.



Best single specimen plants, striped varieties, large Adelaide Medal, value 1*l.* 10*s.*; small ditto, 15*s.*

Best single specimen plants, selfs, ditto.

Entrance—collections, 2*s.*; plants, 1*s.* each; non-members double. Exhibitors put up any number of plants.

*Stove and Green-house Plants.*

Best twelve, Adelaide Medal and small ditto.

*Ericas.*

Best twelve, all classes, ditto, ditto.

Best single plants, amateurs, ditto, ditto.

*American Plants.*

Best twelve, ditto, ditto.

*Forced Flowers.*

Best collection, not less than twelve, ditto, ditto.

*Heart's-ease.*

Best hundred, all classes, ditto, ditto.

Best thirty, amateurs, ditto, ditto.

*Seedlings.*

Best three, raised within twelve months by the exhibitor, three prizes by the Rev. Mr Stainforth.

Entrance each plant, stand or collection, 1*s.*; non-members, double.

*Specimen Plants.*

The best three for rarity and beauty, the King William Medal, the Adelaide Medal, and the small ditto.

The best three for skill in cultivation and beauty, similar prizes.

Entrance 1*s.* each plant; non-members, double. Exhibitors to enter any number.

*Auriculas*, (open to members only.)

The best plant of any kind, large King William Medal.

The best green-edged plants, Adelaide Medal and small ditto.

The best grey-edged plants, ditto.

The best white-edged plant, small Adelaide Medal.

The best self, ditto.

*Polyanthus.*

The best plant in pot, ditto.

Entrance 1*s.* each plant; and exhibitors to enter any number.

In addition to the subjects proposed for prizes, the committee intend, *throughout the season*, to award prizes for any productions of extraordinary beauty and rarity, and especially to encourage seedlings of great merit in all classes of flowers and plants.

Entrance day for *auriculas*, first Tuesday in April.

SECOND SHOW, HAMPTON, MONDAY, MAY 15.

*Tulips.*

Best stand of twelve, Queen's Plate, value 10*l.*

Second stand, King William Medal.

Third stand, Adelaide Medal.

Fourth stand, small ditto.

Entrance, 1*l.*

Best stand of nine blooms, silver cup, value five guineas.

Second stand, plate, value four guineas.

Third stand, plate, value three guineas.

Fourth stand, plate, value two guineas.

Fifth stand, plate, value one guinea.

Entrance 10s.

Best single bloom, rose, small Adelaide Medal.

Best single bloom, byblomen, ditto.

Best single bloom, bizard, ditto.

Best rose breeder, ditto.

Best byblomen breeder, ditto.

Best bizard breeder, ditto.

Entrance, each single bloom, 1s.—no member restricted to number.

Entrance day for tulips,—money to be paid first Tuesday in May.

### THIRD SHOW, JUNE 22, (Members only.)

#### Roses.

Best three collections of fifty different sorts, for all classes, exhibited in bunches or *ad libitum*, in stands provided by exhibitors, large William Medal, Adelaide Medal, small ditto.

Best four stands of twelve single blooms, shown as dahlias, are shown by amateurs only, Adelaide Medal and two small ditto.

#### Geraniums.

Best six plants, large Medal, Adelaide Medal, small ditto.

Best three plants, amateurs, Adelaide Medal, and small ditto.

#### Pinks.

Best stands of twelve blooms, large Medal, Adelaide Medal and two small ditto.

#### Ranunculuses.

Best stands of twelve, ditto, ditto.

#### Hearts-case.

Stands of one hundred, and of thirty, as in April show.

Entrance 1s. each stand—to be paid first Tuesday in June.

### FOURTH SHOW, JULY 20.

#### Carnations.

Best stand of twelve, large Medal, Adelaide Medal, and small ditto.

#### Picotees.

Best stand of twelve, ditto, ditto.

Entrance 1s. each stand, first Tuesday in July.

### FIFTH SHOW, (Public,) AUGUST 24.

#### Dahlias.

Best collection, with names attached, no limit, and open to all classes, Gold Adelaide Medal, value 7l. 10s.

Best fifty dissimilar blooms, by nurserymen and dealers, King William and Adelaide Medals, and small medals to all others the judges may think worthy, not exceeding one half of the stands exhibited.

Best twenty-four, in stands of the society, similar prizes.

Best twenty-four, amateur members, ditto.

Best twelve amateur members, growing under 200 plants, ditto.

No amateur to exhibit in both classes.

#### Seedlings.

As the amateurs appoint judges from the dealers, and the dealers appoint judges from the amateurs, the committee will instruct such judges to select, from the seedlings exhibited, all flowers of first rate quality,

without limit, and none other, for prizes, which will, in such cases, be the small Adelaide Medal. The committee will afterwards appoint competent persons to report to them whether any one or more of such flowers shall deserve a higher distinction, which the committee hold themselves ready to award, even up to the gold medals, should they be deemed worthy of such distinction.

*Stove and Green-house Plants, Ericas, Heart's-ease, and Specimen Plants.*

Prizes and plan as in April.

*Roses.*

Collection of fifty bunches for all classes, and twelve bunches in varieties for amateurs. Prizes as in April.

*Flowering Plants.*

The best collection of any kind, without limit. Large King William Medal, Adelaide Medal, and small ditto.

Entrance:—stands of dahlias, 1s.; seedlings, 2s. 6d. each; non-members' stands, 5s.; seedlings, 5s.

Notice of showing to be given on or before the first Tuesday in August.

GRAND SALTHILL ANNIVERSARY, SEPT. 21.

*Dahlias.*

One hundred blooms, dealers, gold medal, value 7l. 10s.; one large medal, 3l.; one Adelaide Medal, 30s.; small medals, 15s.; to make up two thirds of the number exhibited.

Twenty-four blooms, dealers, similar prizes.

Fifty blooms, amateurs or their gardeners, similar prizes.

Twenty-four blooms, ditto, similar prizes.

Twelve blooms, amateurs, growing under two hundred plants, large medal, Adelaide Medal, and small medals to make up the number to two-thirds of the stands exhibited.

Seedlings as in August.

Entrance—members, 5s.; non-members, 10s. Seedlings—members, 2s. 6d.; non-members, 5s.

Notice to be given on or before the first Tuesday in September.

Persons who win several medals in one day, or during the season, may add their value together, and have the amount in larger medals, or either of the gold medals.

At the conclusion of every show, an order for the medals, or the stipulated reduced sum in money, is to be delivered to the winners.

Circulars to the above effect were ordered to be forwarded to the members.—*Hort. Jour.*

*Crysanthemum exhibitions.*—Shows of this beautiful flower were held last fall by several different floricultural societies in England, and numerous premiums awarded for the best specimens. At the Birmingham Chrysanthemum exhibition the golden Lotus which gained the prize "was upwards of five feet high, upon a single stem, clothed with beautiful and healthy leaves, comprising eighteen branches, which had produced eighty expanded flowers."—(*Hort. Journal.*) We are glad to see so much attention given to this flower: it has always been a great favorite of ours, and we have no doubt, were the same attention given to the hybridization of the different sorts, that the varieties will be as numerous as the dahlia. We hope to see something of the kind here: they bloom at a season when there is nothing in the open garden, and remain in perfection for many weeks.—*Cond.*

## ART. II. Domestic Notices.

*Everbearing Raspberry.*—The *Genesee Farmer* states that a new kind of raspberry has been found in New York state, near Lake Erie, by the Shakers residing there, and that it produces its fruit throughout the summer and autumn. It is also stated to be really a valuable variety, and worthy of extensive cultivation. The fruit in appearance is longer than the wild black raspberry, and approaches near, in size and excellence, to the White Antwerp, but is not so high flavored. The habit of growth is somewhat similar to the common purple raspberry, the shoots of which are very vigorous, bending over and touching the ground, and take root, by which mode it is rapidly increased. Its mode of producing its fruit is as follows:—In the spring the old shoots throw out their new branches, as in other sorts upon which the first crop appears, but soon the new shoots begin to grow, and when they have attained a good size, which is generally just before the first crop is gone, they produce the second crop: to this latter circumstance it owes its name, and its peculiarity. The fruit of the second crop is considered the best. It is grown by Mr. Longworth, of Cincinnati, and by the Shakers near Lebanon, but has not yet found its way into any of our Atlantic cities.—*Cond.*

*Hyacinths.*—Notwithstanding so much has been already written, and so much commendation been bestowed on the cultivation of these universally favorite plants, there is one hint which I would throw out, hoping it may call forth a practical essay on a very desirable point. Whoever has grown a really fine hyacinth would be very unwilling ever to grow a decidedly poor one; and it is to encourage such a laudable taste, that I wish a greater facility to its existence. As a general rule it is stated, that the single varieties are better fitted for glasses than the double, and even for pot cultivation possess the merit of being early. But it is evident to any one who has raised and forced hyacinths for a number of years, that this is no safe criterion by which to be guided. A very accurate list of the precise time of flowering of each desirable variety is needed. Supposing fifty varieties are grown, and many a small green-house may or ought to boast of so many, and these are all planted on the same day, treated with the same soil and care, of the same good quality of bulb, in every external respect equal, there will be, instead of a simultaneous flowering, a gradual succession. Now, it is very desirable that amateurs and florists should keep a memorandum or diary of the flowering of their hyacinths; and by this means many an inexperienced and perhaps unsuccessful lover of such plants would be greatly encouraged, and would appreciate still more this kind of floriculture. I hope, Mr. Editor, you will consider this, and give us from your own experience such a table. The utility of it must strike every one, especially when applied to those more costly varieties, from which the possessor would like to derive the finest possible bloom. He would be guided by a more convenient and safer rule than the pushing of the bulb, especially if he plunges his pots in the cellar, and brings them to light as occasion requires; and with such knowledge the parlor could be supplied with a constant bloom for several months. Lists of kinds arranged, not simply according to color, or their single or double qualities, but according to a better plan, their periodical inflorescence, would afford the florist of more limited means and conveniences the very knowledge which he most needs. Observations of this kind should be made on every new variety, the experience of which should be added to the general sum. Every one knows there are bulbs which might well be called the earliest and the latest flowerers, and there are, too, numberless intermediate ones. Some of the best double

rosy-colored are the *earliest*, and several of the most single, especially the rich crimson varieties, are the *latest*.

The common rule, that single are early and double late, is a very defective one; and if we wish to promote the cultivation of the *finest flowers* of these oriental vegetable genus, it is certainly desirous that every fact stated respecting them should be well established and made certain.

It must be perceived that these remarks do not concern the rapid forcing of these plants. The average temperature of the front sashes of common green-houses does not exceed forty-five degrees Fahrenheit, —a temperature which cannot evolve their flowers before a good supply of fibres have been made, which latter is not the case in highly heated houses, or any warm rooms.—J., March, 1837.

### ART. III. *Queries, Criticisms, &c.*

**ERRATA.** In the communication of Judge Buel, in our last, p. 89, an omission occurs in the 17th line. The sentence should read thus: "Winter pruning bares to the sun and winds, at the worst season of the year, and long before the healing process can commence, the wounds of the amputated branches". In the heading to the article of Mr. Downing, p. 90, there is a very important typographical error. It should read thus: "Remarks on the Duration of the improved varieties of Fruit Trees." "New York," before fruit trees, should have been omitted.

*Dear Sir,*—I observe in your Magazine, for February, a notice of the native pear, raised from the seed by Mr. Isaac Locke, of West Cambridge, which you very justly name the "*Locke Pear*." This is due to him as a successful horticulturist, and one who has done a great deal to improve the science of horticulture amongst us, as well as for the fact that he has added an excellent new fruit to our catalogues. In your notice of it, however, you have made one or two errors which should be corrected. Mr. Locke's name you have given as JAMES: it should be ISAAC. He has several orchards, none of them remarkable for extent, as you observe, but all of them are in a high state of cultivation; and perhaps there is not another person in the State who harvests so much fruit from the same number of trees.—Yours truly, J. B., Boston, March, 1837.

### ART. IV. *Massachusetts Horticultural Society.*

*Saturday, March 4th.—Exhibited.* From E. M. Richards, Prince's St. Germain and 'Echasserie (?) pears. From Mr. Breed, Charlestown, Easter beurré, Chaumontel, St. Germain, and two sorts, the names unknown; these were all good specimens. From J. Gardner, Ortley pippin and Ribston pippin apples. From E. Vose, Easter beurré pears, and Marygold, Wales's pippin, Pomme d'Api, Hubbards-ton Nonsuch, Nonsuch and Pearmain apples; Wales's pippin is a very excellent fruit. From E. Bartlett, Lewis and Ambrette pears, and white Calville apples. From S. Downer, Lady apples, so called, (not the true,) Gardener's sweeting, Ortley pippin, old Pearmain and Minot apples; also, Lewis, Passe Colmar, beurré Rance, and beurré Diel pears.

ART. V. *Obituary Notice.*

DIED, in London, on the 24th of January, 1837, *J. Sabine, Esq.*, late Secretary of the London Horticultural Society: he was in the sixty-seventh year of his age, and his death is universally regretted. The following brief sketch of his connection with the Horticultural Society, and his separation from the same, we extract from a memoir of Mr. Sabine, in the *Horticultural Journal*.

"Mr. Sabine was a man so well known among gardeners, as well as in all the higher circles of society, that we need scarcely describe his habits or his person, and few people in his sphere of life have been more regretted. The two societies which seem to have enlisted among their members all the loose turbulent spirits in the metropolis, the Horticultural and the Zoological, were, notwithstanding all that has been said and written, under obligations which they could never have repaid; but while respected by all whose respect is desirable, Mr. Sabine had the honor of being opposed by some, who envied him the station which he held in the estimation of the public, and sought, by means which we have seen defeated, to deprive him of the honors he had earned in the offices he filled. We who enjoyed the confidence and friendship of the deceased, have not unfrequently observed the contrast between the office of honorary secretary of the Horticultural Society, as filled in his time, and occupied now; and though we can find twenty errors committed by the former, the office, with all its errors, was respected. The chief fault in Mr. Sabine was, that of paying too much attention to promises, and relying too much on public professions. Had one half the wealthy people who encouraged his proceedings on the gardens of the society kept their words, and given the liberal assistance they promised, the society would not have been disgraced by exposure, nor degraded by the change of management. Mr. Sabine's notion of the Horticultural Society of London was, that its gardens should be the best of the kind, and the collections worthy of such a national repository. It was his misfortune that those who admired his plan, and prompted his proceedings, were the last to follow up the good work by producing the requisite funds; and the personal opposition so industriously got up against him, and even attempted to be planted in the Zoological Society, by a few unprincipled busy-bodies, arose from the natural enmity of the vain pretenders, who envied him the natural influence which talent and integrity gave him over almost all the classes. When the Dean of Carlisle was in the chair at the Zoological Society, in March, 1830, a lout of this description, a Mr. Valentine Duke, made a violent attack on Mr. Sabine, which the Rev. Chairman was about to repel, when Lord Auckland gave the flippant blockhead a set down, which spoiled his oratory for some time; for his lordship, after extinguishing the gentleman's light, paid the highest compliment to the good sense, the zeal and attention which Mr. Sabine had shown to the institution, and hoped he would continue there. Yet those proceedings did not appear to ruffle Mr. Sabine's mind in the least. In the same month the famed committee of inquiry into the affairs of the Horticultural Society made its report; and a Mr. Kerr, who liked much to hear himself talk, tauntingly accused Mr. Sabine of being secretary, president, council, and gardener of the society, and moved a vote of censure upon him the moment the report had announced his resignation; and as dirty business can be done best in the dark, it was proposed to vote it by ballot. It was on that occasion that an excellent man, Sir Thomas Acland, said, *the society*

ought to take into account some of the good he had done. The meeting spurned the unmanly proposal, and the motion was altogether withdrawn. Mr. Sabine's errors in the society were errors only because they were not carried out; and whatever people may say of that mountebank concern now, with Lindley dancing the tight rope, Dr. Henderson playing clown, Mr. Gower pantaloons, and the two ladies performing columbine, one fact is certain, either that the Horticultural Society ought to have been carried through upon the liberal scale on which it was planned, or it ought not to have been continued at all; and hundreds of the present members regret that so far as all the real purposes of the society—the collecting of exotics—are concerned, it has been useless the last three or four years. Since Mr. Sabine resigned his office in the Horticultural Society, he has devoted much time to the gardens of the Zoological Society, where the dahlia is cultivated in greater variety than in any public or private garden. Indeed, to this flower had Mr. Sabine become so entirely devoted of late, that he spared no means to learn the origin of every kind, where and by whom it was raised and named, and, if he could, from what seed it came. Among numerous letters and papers in our possession, we shall have ample opportunities of illustrating this desire to ascertain the history of every individual variety. Soon after Mr. Sabine's resignation as honorary secretary of the Horticultural Society, Mr. Burke, (seeing, we suppose, that Mr. Sabine had the superintendence of the Zoological Farm at Kingston,) moved that it be given up. On that occasion, Mr. Sabine defended its continuance very earnestly, and silenced all remarks about being interested, by showing he had expended a hundred and fifty pounds of his own money, because he would receive no reimbursements; and though very well planned and arranged on the part of the malcontents, an amendment for the continuance of the farm was carried by a majority of *nine*. At the last annual meeting of the Zoological Society, Mr. Sabine was one of the council who went out of office by rotation, and he took considerable interest in the election, on account of the opposition list, got up among the well trained enemies to the council. After a good deal of barking on that day, the result of the ballot placed the busy-bodies in such a fragment of a minority, that any idea of commanding the respect or support of a majority in future must be bordering on the insane. Indeed poor Sabine knew every movement of his mole-like adversaries. The ramifications from Regent Street—Dr. Henderson's industrious perambulations—the honorary secretary's cogitations—and all the secret machinery of the little agitating knot of worthies, were as well understood as if they had all taken place in open daylight, and were as effectually defeated. Upon the whole, few lived more respected by scientific men, or more envied by pretenders; few have died who were more missed in the particular circles that they have moved in. For our own parts we shall not, for some time, attend a floral exhibition without recalling him forcibly to our mind; and as many young gardeners owe much to his kindness of heart, so many have lost the benefit of his influence. Mr. Sabine had many marks of distinction on account of his valuable services, the following, in particular, from the Horticultural Society:

'To Joseph Sabine, Esq., the Honorary Secretary, the Gold Medal, as a token of the high sense entertained by the Society of the very great assiduity and intelligence manifested by him, as well in the formation of the by-laws as in the arranging and settling the long and very intricate accounts of the Society.—June 4, 1816.'

Mr. Sabine was the early patron of the late lamented Douglas, and was the means of his being employed for the Horticultural Society; and it is to him, almost as well as to the latter, that the horticultural community is so much indebted for the beautiful plants he sent home.—*Cond.*

## ART. VI. Faneuil Hall Market.

Roots, Tubers, &c.	From To		Pot and Sweet Herbs.	From To	
	\$ cts.	\$ cts.		\$ cts.	\$ cts.
Potatoes :			Paralely, per half peck,.....	25	
Common, { per barrel,....	1 25	1 50	Sage, per pound,.....	17	20
{ per bushel,....	50	55	Marjoram, per bunch,.....	6	12
Chenangoes, { per barrel,....	1 50	2 00	Savory, per bunch,.....	6	12
{ per bushel,....	50	75	Spearmint, per bunch,.....	6	
Eastport, { per barrel,....	3 00				
{ per bushel,....	1 00	1 25	Fruits.		
Turnips: common,			Apples, dessert :		
per bushel,.....	75	1 00	Common, { per barrel,....	1 50	2 00
French, { per barrel,....	1 50		{ per bushel,....	75	1 00
{ per bushel,....	50	75	N. Y. Pippins, { per barrel,....	2 50	3 00
Onions :			{ per bushel,....	1 50	2 00
per bushel,.....	1 25	1 50	Russets, { per barrel,....	2 00	2 50
red, { per bunch,....	4	6	{ per bushel,....	1 00	1 25
white, { per bunch,....	4	6	Baldwins, { per barrel,....	2 00	2 50
Beets, per bushel,.....	75	1 00	{ per bushel,....	1 00	1 25
Carrots, per bushel,....	75	1 00	Golden Pippins, per bushel, none.		
Parsnips, per bushel,....	75	1 00	Bellflower, per bushel,....	none.	
Salsify, per bunch,.....	12½		Pears :		
Horseradish, per pound,....	10	12½	St. Germain, per dozen,...	none.	
Radishes, per bunch,....			Passe Colmar, per dozen,...	none.	
Scarlet Short top,.....	17	20	Chaumontel, per half peck, none.		
Scarlet Turnip,.....	10	12½	Winter Katin, per peck,...	none.	
Shallots, per pound,.....	20		Baking, { per barrel,....	3 50	4 00
Garlic, per pound,.....	14		{ per bushel,....	1 50	2 00
Cabbages, Salads, &c.			Quinces, per bushel,.....	none.	
Cabbages : per dozen,			Cranberries, per bushel,....	6 00	6 00
Savoy,.....	75	1 00	Pine Apples, each,.....	25	50
Drumhead,.....	1 00	1 50	Grapes: (foreign,) per pound,		
Red,.....	1 00	1 50	White Malaga,.....	25	
Cauliflowers, each,.....	25	50	Purple Malaga,.....	20	
Lettuce, per head,.....	6	10	Cucumbers,.....	1 00	
Rhubarb, per pound,.....	37½		Oranges, { per box,.....	2 00	2 50
Celery, per root,.....	12½	25	{ per dozen,....	25	50
Spinach, per peck,.....	50		Lemons, { per box,.....	2 75	3 00
Squashes and Pumpkins.			{ per dozen,....	25	37½
Winter crookneck, per pound,	6	8	Shaddocks, each,.....	25	
Lima, per pound,.....	none.		Chestnuts, per bushel,....	none.	
West India, per pound,....	8	4	Walnuts, { per barrel,....	4 00	4 50
Pumpkins, each,.....	12½	20	{ per bushel,....	2 25	2 50
			Almonds, (sweet,) per pound,...	12	14
			Filberts, per pound,.....	4	6
			Castana,.....	3	6

REMARKS.—Since our last the state of the market has improved, though the prices of some of the staple productions have decreased. The breaking up of the ice in the rivers at the Eastward has enabled coasters to bring up large cargoes of potatoes, and the milder weather of advancing spring has enabled marketmen in the vicinity to bring in many vegetables which have been covered during winter. The consequence has been a reduction in prices of most of those articles which have come to hand in greater abundance.

Of potatoes there has been very numerous arrivals, bringing full cargoes, and prices have fallen: we stated in our last that the stock was probably sufficient for the spring. We took the opportunity last season to offer a few remarks upon the qualities of some varieties of potatoes; it is with pleasure that we now state that they were the means of call-



ing attention to the subject, and quite large quantities of some of the kinds were planted; in no instance, that has come to our knowledge, have those who have followed our advice been disappointed; and we would again urge upon gentlemen, marketmen, and farmers who have not yet tried the sorts we noticed, to do so this season.

Turnips are yet sufficiently plenty. Onions, though not scarce, cannot be said to be more than moderately abundant, considering that the season is not yet far advanced. Horseradish is abundant, and of finer quality than that which has lately come to hand. Radishes are now brought in of very fine quality, and sales are more brisk and prices moderate: the scarlet and purple turnip varieties are raised in considerable quantities, but they do not command, at this season, a very ready sale. Cabbages are scarce, notwithstanding they have come in in greater abundance than during mid-winter. A few cauliflowers are occasionally to be had. Lettuce is brought in of most excellent quality and in abundance for the early season; some heads, of considerable firmness, were to be had the present week. Celery is almost gone; only a few roots occasionally coming to hand.

There is scarcely a crookneck squash to be had in the market; occasionally a few are brought in from a distance, and these bring the prices in our quotations; but the very late arrivals of large quantities of West Indias has glutted the market so that the former do not sell as high as at the time of our last report; the latter have come to hand of fair size and good quality.

In fruit very little is doing: sales of apples are extremely dull, and prices remain the same; those of the first quality of some sorts yet remain on hand: Golden pippins and Bellflowers are all gone. Of pears none are now to be had except the common baking sorts. Grapes are nearly out of season. This week the first cucumber of the season was brought in; it was of fair size, and sold at our quotation: probably the market will soon be supplied. Cranberries are yet high. Chestnuts are all gone. Walnuts have fallen a shade in price since our former reports.—*Yours, M. T., Boston, March 25th, 1837.*

## HORTICULTURAL MEMORANDA

### FOR APRIL.

Up to this time, (March 24th,) the weather remains, in the latitude of Boston, cold, and the snow yet lies upon the ground in considerable quantities in some situations; the frost is not yet out only in some spots, and, consequently, little can be done in the garden. We have known seasons when the mildness of the weather, in the last week in March, was such as to allow the uncovering of grape vines, strawberries, &c., and among the flowers, tulips, hyacinths, and perennial flowers in general; but we fear, unless a great and sudden change takes place, that it will be late in April before the frost wholly leaves the ground, and it shall have become suitable for the operation of digging, and more especially of putting the seed into it, with hopes of vegetation.

Now is the time to gather up and carry off all decayed flower stalks from the flower border, and in the vegetable garden the same should be attended to. This done, all will be ready to proceed to digging as soon as the state of the earth will permit. Prune gooseberry bushes, and, where yet neglected, such small shrubs and plants, as, from their situation, require it. Do all now that can be done with facility, in order that the planting season may not pass and find but half of the seeds transmitted to the earth.

## FRUIT DEPARTMENT.

*Grape vines*, that have so far pushed their buds as to now show their embryo clusters, will need attention. Syringe frequently with pure water, until they show signs of opening, when it should be withheld from them until the fruit is set.

*Cuttings* may yet be put in the hot-bed where a large quantity are wanted, and the chance has been delayed.

*Strawberry beds* should be uncovered as soon as possible, unless the nights are exceedingly cold.

*Gooseberry and currant bushes* should be removed as early in the month as possible.

*Grafting*: the present month is a good season of the year to collect grafts, when it has been neglected the previous autumn: place them in a cool cellar until wanted.

## FLOWER DEPARTMENT.

*Dahlia roots*: plant them in hot-beds, or forward them in the greenhouse, so that their roots can be separated with more certainty; after they are separated, put each in a small pot. Sow the seeds this month, or they will not bloom well the first year.

*Auriculas and polyanthuses* that have done blooming should be set in a cool place, not exposed to heavy rains. Sow the seeds of both now, if not done last month.

*Ranunculuses* should be planted *immediately*, if they have been left out since the autumn. Spring planting is, however, in our opinion, not so good as autumn.

*Tiger flowers* should be potted for early flowering.

*Amaryllis formosissima* should be set in pots, in a light rich soil, in a warm situation.

*Tuberoses* should also be potted.

*Gladiolus natalensis* and *floribundis* may be planted as soon as convenient.

*Pinks* that have been sheltered in frames, or in the greenhouse, should be planted out into their flowering beds as soon as the weather will possibly allow: they suffer by being drawn up in the former place.

*Tulips, hyacinths, and other bulbous roots* should be uncovered as soon as the weather is mild: it is better to uncover them at any rate, as they are apt to suffer; and if cold weather ensues, they can easily have a small part of their winter covering thrown over them. Hyacinths that have been flowered in pots should be turned out into the open ground upon the sides of the bulbs, and allowed to ripen.

*Calceolarias*: continue to repot these as fast as they require it.

*Annual flower seeds*, particularly the tender kinds, should be sown in a hot-bed, or in the greenhouse; such as the mimuluses, gillias, schizanthuses, &c. should never be planted in the open ground, exposed to our heavy spring rains.

*Roses*, in the border, should be pruned about the middle of the month.

*Ericas*: continue to propagate these; the present and ensuing month are the best in the season for good success.

*Camellias* will still require good supplies of water, and good syringings over their heads every day. Pots of seeds, which are just breaking the ground, may be plunged in a bottom heat.

*Geraniums*: give a great quantity of air in that part of the house in which these are grown, to prevent their being drawn up.

## VEGETABLE DEPARTMENT.

*Peas*: make preparations to get the first sowing into the ground immediately.

*Asparagus* will need top dressing, and the surface forked up.

*Egg-plant seeds* require a strong bottom heat to vegetate them.

# THE MAGAZINE

OF

## HORTICULTURE.

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MAY, 1837.

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### ORIGINAL COMMUNICATIONS.

ART. I. *Notes on some of the Nurseries and Private Gardens in the neighborhood of New York and Philadelphia, visited in the early part of the month of March, 1837.* By the CONDUCTOR.

*Brooklyn, New York.*—In the commencement of this article in our last, we stated that this young city was progressing rapidly in horticulture and floriculture, and that it would perhaps, in a few years, excel, in the beauty of its gardens, any in the city of New York, on the other side of the river. It was at this place that M. Parmentier established his celebrated nursery, which, unfortunately for the progress of horticulture in this country, was, a few years since, upon the death of its amiable and gentlemanly proprietor, broken up, and the land purchased by a company of gentlemen, to be converted into building lots. Had he lived, we had anticipated a finer collection of fruit trees than has yet been made in this country. His correspondences with several of his own countrymen in Paris and other parts of France, as well as with all the gardeners of Germany, and, in fact, throughout the continent, enabled him to get in his possession, and at an early period, all the superior fruits. There are a great many trees in the vicinity of Boston which were purchased here after his death, and we have never seen better specimens offered for sale in this country; although they have yet been planted scarcely three years, some of them have already produced a few fruits.

It is, without doubt, owing to the formation of such a garden here, that such a stimulus has been given to gardening, and so great a taste created for its productions; this taste has continued to

increase with the same rapidity as the population, until the present moment, when, for the number of its inhabitants, it can boast of an equal or greater number of fine gardens, or villa residences, than any other town or city in the Union. Should the same zeal continue to manifest itself, we are not sure but it will rank as the first city, in point of floriculture, in the country.

*Residence of N. I. Becar, Esq., Henry Street.*—Attached to the garden of Mr. Becar is one of the finest conservatories we have ever seen. Indeed this, and that of Mr. Perry's, in the same street, and but a short distance from Mr. Becar's, taken together, may be considered as two of the best specimens of plant houses, in their peculiar style, that have ever been erected in the country. Some notice of the conservatory of Mr. Becar was given at p. 31, by our correspondent, Mr. Downing, of Newburgh; but at the time of his visit, it was not finished sufficiently to secure the plants, and they were then temporarily placed in a small adjoining one now made use of for a stove. Since that time (Nov.,) they have been moved into the conservatory, where we found them in excellent order, and in a very thriving condition.

This structure is not attached to the house, as is Mr. Perry's, the situation of the garden not allowing of this; the distance is, however, but a few steps, and it is thus easily accessible to the family at any season of the year. The length of the conservatory is upwards of fifty feet, and its width about fifteen. It fronts the garden, from which it is entered in the centre, and also at the end; the former entrance not being made use of during mid-winter. The conservatory is built with a span roof, but is glazed only on the sides, the back being a solid brick wall. The situation of the garden being low, and the adjacent ground in the rear of the conservatory very high, it was found necessary to have it constructed in this manner; the back wall thus forms an excellent place for training up various kinds of runners and creepers, and when covered with them, will present a beautiful display of foliage and blossoms. This will be much better than if it had been glazed in the same manner as the front: for then its exterior beauty would have been sacrificed, and the view from the interior would have been void of all interest. The lightness of a glazed back, in this case, would not have in the least enhanced the beauty of the conservatory; but as now, would have to be covered with climbing plants to shut out the view. We would here suggest to Mr. Becar the planting out of that beautiful climber, the *Wistaria Consequana*; this, trained against the back wall, and covering its surface with its splendid blossoms, would be one of the most magnificent objects imaginable.

The interior of the house is constructed with a narrow border around the sides and ends, and an oblong bed in the centre; in the latter is planted out a great variety of choice plants, embrac-

ing several elegant and well grown specimens. The walk between this and the border, all round, is paved with marble; at each end of the large bed, is a beautiful marble vase, in which were growing vigorously, and running over the edges, that brilliant little gem, the *Verbena chamædrifolia*. This plant we could wish to see grown in vases much more extensively than it is at present; by proper care and treatment it may be made to extend its creeping stems to a great length, and, overhanging the sides of a beautiful vase, or even a common flower pot, elevated upon a pedestal, either in the conservatory in winter or the open garden in summer, covering their whole distance with its dazzling blossoms, is one of the richest ornaments of either place. In the centre bed we noticed several large camellias, among which was Lady Hume's blush, and the *maliflora*, and also a number of small ones of the newer kinds. The lemon and orange trees planted out are large and fine specimens. *Passiflora quadrangularis* was blooming well, and a white azalea, *A. ledifolia*, was one mass of flowers. That pretty little plant, the *Lotus jacobæus*, which may be treated as an annual, and set in the border, had grown vigorously, and was full of dark blossoms. Some geraniums, roses, stocks, &c. partly filled up the spare room in the conservatory, which, as it had only been just completed, Mr. Becar had recourse to these, in order to make some display; and at a future time they can be thrown out to make room for newer and more choice plants.

The conservatory is warmed by a hot water apparatus, constructed by Mr. Anderson, an engineer, of Brooklyn. It is neat in its appearance, (the pipes being made of cast iron and bronzed;) but we do not admire the pipes running above the borders. In our opinion there is no method so neat, and at the same time equally as well adapted for heating all kinds of horticultural structures, as that of running the hot water pipes under the walks, and allowing the heat to rise through a cast iron grating, or wooden trellis work. Mr. Anderson's apparatus seems to heat the house very readily, but its first cost is more than double that of copper pipes, boiler and reservoir. The furnace is set considerably below the walks of the conservatory; from the boiler, which is very large, holding a great number of gallons of water, proceeds an expansion pipe, which rises to the height of five or six feet; this pipe is fitted to the boiler so as to be water-tight. The furnace being at the end of the conservatory from which it is entered, this expansion tube rises on one side of the door, out of the narrow border, to the above height; from this tube or pipe the water is conducted through the horizontal pipes round the house, into another tube or perpendicular pipe, corresponding with that just mentioned, and which answers the purpose of a reservoir. These pipes are about ten inches in diameter, and are surmount-

ed with neat urns, corresponding in their style to that of the house; the whole, horizontal pipes and all, being bronzed, present not an unhandsome appearance; and the expansion pipe and réservoir might be taken, by strangers, as ornaments of the conservatory, rather than as a part of the apparatus for keeping the temperature of the air suitable for vegetation. We were sorry that we had not the pleasure of seeing Mr. Becar on our visit to his garden; we shall endeavor, however, to procure of him a plan of his conservatory, and, at some future time, lay the same, with a full description, before our readers.

In a little stove adjoining, and which was formerly used as a green-house, we observed a number of plants, and several fine cactuses. This little place is heated by one of Mr. Hogg's apparatuses, which we have spoken of in the previous part of this paper: it is very small, not much larger than a *half* barrel; but Mr. Becar's gardener informed us that he could keep the temperature at any required point. The boiler stands without the house, the smoke from the fire passing off through a funnel. The consumption of coal last season was somewhat less than two tons, and the prospect was, that it would be about the same the present season. This, considering that the house is not large, is allowing a moderate quantity of fuel, and we should judge, if Mr. Becar's gardener was correct in his estimate, would be at least as small a quantity as any of the other systems of heating would consume. Mr. Hogg's apparatus cannot then be said to be a great consumer of fuel. We should not do justice to Mr. Becar's place, or to his gardener, were we to omit to state, that for tasteful arrangement, and the utmost neatness in every thing connected with the conservatory, we saw nothing during our visit which would excel.

*Residence of — Perry, Esq.*—This place, which, we have just stated, was but a short distance from Mr. Becar's, is situated upon a more elevated spot of ground, near the south ferry, and commands a fine prospect of New York harbor. The house is built in the Grecian style, with a wing extending to the east, which is the conservatory. It is built with a span roof, and is glazed on the two sides and one end, the other end communicating with the house, from which it is entered through the parlor. The side sashes have shutters, which are closed up in cold nights, similar to those generally used in parlors, but opening upon the outside; these open back in such a manner that they are not observed from the outside, and they are of great importance in keeping out the frost, and make a great saving of fuel. The interior of the conservatory is similar to Mr. Becar's, the latter having been constructed subsequently to Mr. Perry's. There is a border around the sides, and a large bed in the middle of the house, in the same manner. The latter is filled with fine large

specimens of camellias, orange trees, &c. We noticed, in particular, two very large *Olea fragrans*, a large *Jambosa vulgaris*, *Magnolia conspicua*, and double pomegranate; also, a fine plant of the *Phoenix dactylifera*. Mr. Perry has just begun to make a collection of camellias, and we noticed several plants of the choice varieties, such as *élégans*, *eximia* and *Fløyi*; these were planted out near the edge of the large bed, in the centre of the house, and will probably make a vigorous spring growth. A rhododendron, called the *R. arboreum* var. *Russellianum*, but which was not true, was about expanding its blossoms; it was a very beautiful variety. A species of *Cassia*, marked sp. nova, with large bright yellow flowers, was exceedingly ornamental.

On the shelves we noticed plants of *Diosma capitata*, *Chorizema rhombea*, *Blétia hyacinthina*, *Cineraria amelloides*, *Stylidium adnatum*, and among a good collection of cactuses, the *Echinocactus Eyrièsii*; this beautiful species we have found in several gardens during our late visit; it is said to possess great elegance, but being a night flowering one, is rendered less valuable. We do not know that it has ever flowered in the country; but we saw plants, during our visit, which were showing buds, and it will undoubtedly perfect its elegant blossoms, this spring, in several collections both around New York and Boston. This species seldom throws out any offsets, and is consequently increased very slowly; it has been noticed in our ii. pp. 101, 347.

The conservatory here is heated on the same system as Mr. Becar's, and the whole apparatus is precisely like his. The length and width of Mr. Perry's conservatory is about the same as that of Mr. Becar's; and the only superiority it possesses over his, is the facility with which it is entered from the parlor; adjoining immediately to the house, it is accessible at any moment during the day or evening. We noticed that elegant lamps were suspended in different parts of the conservatory; these, on many occasions, are lighted, and an evening promenade, much more extensive than most city gardens afford even in the summer season, and certainly presenting to the eye a far richer display of blossoms, can here be enjoyed during the most inclement weather of our long winters. The advantages are so many and important, of having the green-house connected with the mansion, either through the library or parlor, that we have often wondered at their generally isolated situation. This is particularly the case around Boston, where there is scarcely a green-house, certainly not one of any size or beauty, which connects with the living rooms of the dwelling house. We hope that those who are about erecting plant structures will bear this in mind.

We were glad to learn that Mr. Perry has already contemplated the extension of his conservatory; it is his intention to make it nearly twice its present length, and the new addition will be

principally used as a stove; the glazed end of the present structure will form the partition between the two. This is as it should be. We are convinced that no person who has a taste for plants, and has the means to gratify such a taste, would content himself with a green-house alone,—there are so many splendid shrubs which need a higher temperature than that at which green-houses are kept, that he who would possess them can only do so with the aid of a stove. The singular family of cactuses require more than the heat of ordinary green-houses to have them flourish and display their blossoms in perfection: were all the species and varieties to be seen in bloom at once, we are almost persuaded that structures would be erected for their cultivation alone: the only reason why they are so little appreciated is, that in our cold and damp green-houses they scarcely ever display their gorgeous blooms, and they are, therefore, considered as useless plants. A green-house, strictly speaking, is but a place for the preservation of plants, and not for the growth of them; and the idea which some persons have, that all sorts and kinds may be grown in them, is entirely erroneous. It is owing to this one cause that we frequently hear complaints of the difficulty of cultivating some particular species or variety. But to return from this digression: Mr. Perry's conservatory and stove together, when completed, will be, as indeed it now is, one of the most beautiful structures that has ever been erected, and will reflect great credit upon its liberal and gentlemanly proprietor. We had intended to have requested of Mr. Perry the liberty of taking a plan for our Magazine, for insertion, the ensuing summer; but as we shall give that of Mr. Becar's, if we have his consent, we shall put off that of Mr. Perry's until he shall have completed his contemplated addition of a stove. It would give us great pleasure to see some such similar structures in the vicinity of Boston; and we confidently hope that some gentlemen who have the taste, as well as ample means to do so, will cause such to be erected.

Mr. McNamara, Mr. Perry's gardener, appears to understand his profession; and the healthy appearance of the plants, though many of them had not been planted out long, attested his good management. We had almost forgot to mention Mr. McNamara's mode of keeping his dahlias: the tubers, after they are dug up in the fall, are carried to a dry room for a few days; they are then committed to a dry cellar underneath the conservatory, (one end of the latter being considerably elevated above the ground, owing to its gradual descent from the mansion,) and placed upon trellised shelves; this allows of a free circulation of air around and *underneath* them, and they retain their firmness in an extraordinary degree. This mode also prevents the rotting of the stems, which often carries off a whole collection, the



tubers remaining sound, but the buds around the crown being destroyed by a kind of dry mould. We do not recollect of ever seeing so large a number in such a fine condition; we would commend this mode to our readers, and we shall be glad to learn the results of a more general trial of the practice.

*Residence of — Whiting, Esq.*—There is attached to the house of Mr. Whiting, in the same street, a small conservatory, if such it can in reality be called, which is situated on the southerly side, and is entered from one of the parlors; it is scarcely more than six feet wide, and not more than twenty long, and, were the glass removed, it would have somewhat the appearance of a piazza; it is glazed on the ends and front: though limited in its room, still it is sufficiently large to grow many plants, and is particularly suited to the growth of hyacinths, and other bulbs requiring similar treatment. It would give us much pleasure to see even these small places attached to the various houses; they would eventually lead to the construction of larger ones. Several amateurs of our acquaintance began their collections of plants in a house of not much larger dimensions than Mr. Whiting's, and also with but a slight knowledge of plants; but the same taste which first induced them to cultivate a few has grown upon them in such a degree, that they will not be content until they possess every thing new and beautiful that can be found. We noticed nothing new among the plants in bloom.

*Multiflora Garden, Mr. S. Maynard, Clinton Street.*—This garden does not, at present, offer much that is interesting at this season; its principal attraction is during the summer, when the perennial plants and shrubs, and particularly dahlias, are in bloom, of which latter flower Mr. Maynard possesses one of the choicest collections in the city. The garden is laid out with considerable taste, and is designed by its circumscribed, though circuitous, walks, to present to the spectator as great an extent of ground as possible. The whole is, we should judge, somewhat less than an acre; but Mr. Maynard has so planted the shrubs that, when the dahlias and other tall growing plants have nearly or quite attained their size, the boundary lines of the garden will scarcely be seen.

The green-house attached to the garden is yet rather small, and contains but a limited number of plants,—these were principally geraniums. Mr. Maynard, however, contemplates enlarging the green-house twice its present size in the course of the year; and he will then be enabled to keep the usual assortment of plants found in all nursery gardens, and for which the demand is considerable. Mr. Maynard has resided in Brooklyn several years, and the taste for plants has wholly sprung up within a very short time. He first began to cultivate a few plants as an amateur; but his garden being in a central situation, was visited

by so many persons, that he was induced to sell both plants and flowers: customers have increased at such a rate, that it is as much as he can attend to, in the spring of the year, to execute their orders.

In the green-house we noticed but few things in bloom excepting the geraniums; these were coming into flower finely. Mr. Maynard, we observed, had begun to propagate his dahlias, and in a small house, adjoining the green-house, had a great number of stools in pots; among these were nearly all the fine kinds of the past year. Both in New York and in Brooklyn there is a great and increasing taste for dahlias, and we were surprised to learn that in some of the smallest city gardens nearly a hundred varieties are, in many instances, grown: This desire to possess fine dahlias is not so general around Boston; but we hope soon to see the same zeal manifested by the amateur cultivators in its vicinity which has been the means of introducing the dahlia to general notice in and around New York.

We were much indebted to Mr. Maynard for his kindness, during our visit, in introducing us to several of the gardens in the city; we hope when we again visit this garden, that it will be during the summer season, when we shall find much that is new and interesting to attract our attention.

*Mr. Russell, Florist, corner of Jay and Willoughby Streets.*  
—This collection is mostly noted for its fine geraniums, of which Mr. Russell has a great stock of plants, including a considerable number of seedlings of his own raising. The plants were exceedingly well grown, and in this respect would compare with Mr. Hogg's. So early in the season but few had begun to expand their blossoms; one or two seedlings had a truss or two open, which bid fair to be excellent flowers; Mr. Russell possesses a very good variety, and annually imports new kinds. Geraniums are in great demand in New York and Brooklyn, and even in Philadelphia; but there does not seem to be near so great a desire to grow them in the vicinity of Boston as in the former places: now, however, that cultivators are getting the newer kinds, we anticipate for them a more ready sale. We hope amateurs will commence the production of new geraniums from seed; they produce their flowers during the second year of their growth; and their variable and sportive character, when raised from seed, is a source of much interest to the cultivator; very few American seedlings have yet been produced of any merit. We here saw, for the first time, a plant of the true *Rhododendron arboreum* var. *Russellianum*. We presume we have seen, within the past two years, at least five or six plants in flower, (among them one in our own collection,) which were received from England under this name; but from the description which has been given of the flower, and from the drawing itself,

we have supposed them incorrect; we are now satisfied that they were so. The variety *Russellidnum* is quite different from any of the others, the flowers being of a bright rose, without any spots; all that we have observed previously to Mr. Russell's plant were more or less spotted; and probably the plants which exist in many collections under this name, and which have been received from England, are nothing more than seedlings, of which hundreds are raised every year; and any of these that approach in appearance the *Russellidnum*, are sent out for this variety: it is one of the most splendid, and is far superior in beauty to the hybridum; in our opinion it is only excelled by the *alta clerense*; the foliage is quite different from the hybridum, and when once particularly observed, can easily be told from the former: no good collection should be without it. Mr. Russell's collection does not particularly excel in any thing but geraniums.

We visited some other amateur gardens in which many very pretty collections of plants were grown; among them we may mention those of Mr. Brown and Mr. Howe, in Willow street. The former gentleman has a number of excellent camellias, and several fine azaleas; the green-house of the latter is attached to the parlor, and though small, is filled with plants, of which many of them are handsome specimens. Altogether, Brooklyn affords many places of interest to the amateur; and we should have been highly gratified, had our time permitted, to have made a longer stay at each of those we had the pleasure of visiting.

**ART. II.** *Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some Account of those which it would be desirable to introduce into our Gardens.*

*Edwards's Botanical Register*, or Ornamental Flower Garden and Shrubbery. Each number containing eight figures of Plants and Shrubs. In monthly numbers; 4s. colored, 3s. plain. Edited by John Lindley, Ph. D., F. R. S., L. S., and G. S. Professor of Botany in the University of London.

*Curtis's Botanical Magazine*, or Flower Garden Displayed, containing eight plates. In monthly numbers; 3s. 6d. colored, 3s. plain. Edited by Sir W. J. Hooker, L.L. D., F. R. A., and L. S., Regius Professor of Botany in the University of Glasgow.

*Paxton's Magazine of Botany*, and Register of Flowering Plants.

Each number containing four colored plates. In monthly numbers. 2s. 6d. each.

Immediately after writing the article under this head, in our last, our foreign magazines, up to a late date, came to hand, and we hope for the future that they will be regularly received. We shall in consequence be enabled to give our readers an account of nearly or quite all the new plants which have been, and all that may be, introduced into Britain. Those of great beauty will, as heretofore, be particularly noticed, while those which are merely of botanical interest will be but slightly mentioned. The orchideous plants, though but few are yet cultivated, will be noticed, in order that all the species, should they hereafter become extensively grown, may be found recorded in our Magazine.

## DICOTYLEDONOUS, POLYPETALOUS, PLANTS.

*Malvaceæ.**HIBISCUS*

*splendens* Hooker. Splendid Hibiscus. A green-house (?) plant; growing from twenty to twenty-five feet high; color of the flowers a rosy pink; appearing in the spring; propagated from seeds and cuttings; a native of New Holland. Pax. Mag. Bot.

This is stated to be a "splendid feature" of the natural order *Malvaceæ*; it was introduced some years since by Mr. Frazer, from New Holland, who describes it as follows:—"This I consider as the king of all the known Australian plants. I have seen it [the plant] twenty-two feet and a half high. The flowers, this season, measured nine inches across; they were of the most delicate pink and crimson color, and literally covered the entire plant." The plant from which the drawing was taken grew in a stove, but Mr. Paxton recommends keeping it in the green-house. It thrives in peat and loam, and is easily increased. It is a highly desirable plant, and worthy of a place either in the stove or green-house. (Pax. Mag. Bot., August.)

*Escalloniaceæ.**ESCALLONIA*

*illinita* Presl. Varnished Escallonia. A green-house evergreen shrub; growing five or six (?) feet high; color of the flowers white; appearing in August and September; propagated by cuttings; a native of South America. Bot. Reg., 1900.

"By far the most hardy [in England] of the many species of *Escallonia* at present in our gardens, and is not unlikely to become a common evergreen." The flowers appear in terminal spikes, and are exceedingly neat. It is a native of the mountains of Chili, and it also grows near Valparaiso. The plant is stated to emit a powerful, and, to some persons, disagreeable odor, resembling the smell of swine. The drawing was taken from a plant in the Horticultural Society's gardens: easily grown from cuttings. (Bot. Reg., Oct.)

The genus *Escallonia* is scarcely known in our gardens. *E. montevidensis* is generally covered with hundreds of heads of flowers: we have a plant of this, but have never yet been able to flower it, but hope to do so the coming season.

*Onagraceæ.**GODETIA*

*vinosa* Lindl. Wine-stained Godetia. A pretty hardy annual; growing a foot or more in height; color of the flowers rosy white; appearing in July and August; increased freely by seed; a native of California. Bot. Reg., 1880.

This is the last of all the new godetias introduced to the London Horticultural Society by the late Douglas, from California. It is a

handsome species, and of a delicate habit. The petals are nearly white, with a slight dash of purple, and the anthers of a deep crimson. Both this and *G. rubicunda*, noticed in our ii. p. 293, are desirable annuals. (*Bot. Reg.*, July.)

### *Proteaceæ.*

#### *DRYANDRA*

*longifolia* Long-leaved Dryandra. A green-house evergreen shrub; growing from four to six feet high; color of the flowers yellow; flowering at various seasons; grows in loam, peat and sand; cuttings with difficulty rooted in sand; a native of New Holland. *Paz. Mag. Bot.*

Plants of the natural order to which this belongs are rarely met with in our gardens: the only collection at all rich in them is that belonging to the late Dr. Hosack, at Hyde Park, of which some notice is given in p. 36. They are all stately evergreen shrubs, with singular flowers, but, when well grown, of a beautiful appearance. They are nearly or quite all natives of New Holland, and are admirably suited to green-house culture. *Dryandra longifolia* has handsome yellow globose flowers, covering its rich branches, at intervals, from the bottom to the top of the plant. The foliage is very graceful from its pendant habit; altogether it is one of the handsomest plants in this order. The drawing was taken from the Manchester Botanic Garden. (*Paz. Mag. Bot.*, Sept.)

### *Rosaceæ.*

*KERRIA* De Candolle, (named in compliment to Mr. Win. Kerr, a botanical collector sent from Kew to China.)

*japonica* De Candolle syn: *Córchorus japonicus* Thunb. Japan *Kerria*. A half hardy shrub; growing from four to six feet high; with yellow flowers; a native of Japan. *Bot. Reg.*, 1873.

The common double corchorus, an old inhabitant of many of our gardens, and a shrub which should be in all of them, is the *Kerria japonica* in its double state. "It was supposed to be a species of *Córchorus*, until Prof. De Candolle investigated its affinities, and decided that it was to *Rûbus* and *Spiræa* that the plant was really allied, and not to any *Tiliaceous* genus." The correctness of the opinion of this celebrated botanist is now fully proved by the opening of the blossoms of a single-flowered plant in the Horticultural Society's garden. It was very lately introduced by John Reeves, Esq., and is already in many English collections. As an ornament of the shrubbery, it is much less desirable than the double one; the flowers are quite small, and altogether destitute of the showiness of the former. (*Bot. Reg.*, July.)

#### *CRATÆGUS*

*platyphylla* syn: *C. flexa* Hort. nec *Boscii*. Broad-leaved Thorn. A hardy small tree, with snow-white flowers. *Bot. Reg.*, 1874.

"Certainly in foliage, and elegance of general appearance, this is the handsomest of all the European hawthorns." Its growth is exceedingly vigorous, and the tree is loaded with bloom long after the common hawthorn is out of flower. The berries are blackish purple. Dr. Lindley thinks this is either "some European or North Asiatic plant," but cannot be traced in books. (*Bot. Reg.*, July.)

*pyrifolia* Hort. Kew. Pear-leaved Hawthorn. *Bot. Reg.*, 1877.

This, though a handsome species, with leaves among the largest of the genus, is less desirable than some others. The branches loaded with blossoms, are, in the spring, handsome; but the tree forms an inelegant head, and the leaves drop, leaving the fruit attached to the naked branches. It is a native of this country, growing in rocky woods from Pennsylvania to South Carolina. (*Bot. Reg.*, July.)

*tanacetifolia* Pers. Tansy-leaved Hawthorn. *Bot. Reg.*, 1864.

"Obviously known from *C. odoratissima* and *orientalis* both by its

yellow solitary sessile fruit, to which a small number of leafy bracts adhere irregularly, and also by its regularly pinnatifid leaves, the fine toothings of which are tipped with a gland." The berries are very large and showy. It is a native of Greece. (*Bot. Reg.*, Aug.)

*odoratissima* *Bot. Reg.* *C. orientalis* *Bieberst.* Sweetest scented Hawthorn. *Bot. Reg.* 1833.

Another very beautiful species of *Cratægus*, with very fragrant flowers, and numerous clusters of red fruit. The habit of the plant is to form a dense round head, rather stiff than otherwise. It is a native of the Crimea, and is a very showy species. (*Bot. Reg.*, Aug.)

*spathulata* *Mich.* syn: *C. viridica* *Loddiges* *C. viridis* *Hort.* Spathula-leaved Thorn. A hardy shrub, growing four or five feet high. *Bot. Reg.*, 1819.

"There can be no doubt," Dr. Lindley states, "that this is the real *C. spathulata* of Michaux, about which so little is known, that it is altogether omitted from the Floras of Torrey, Hooker and Beck, is introduced by name into Elliott's work on South Carolina, without that author's being acquainted with the plant, was missed by Willdenow, and was unknown to De Candolle." Like many more of the indigenous species, though perhaps mentioned in the works of the above botanists, they are altogether as much unknown to amateurs and nurserymen as if they were natives of a foreign clime. Indeed, the only one which is cultivated to any extent is the old English hawthorn, the *C. Oxyacantha*, a native of Britain. We sincerely hope that in future they will attract more attention: it does not certainly speak much for the taste of our cultivators to see a tribe of plants, so valued in England, entirely neglected, and, in fact, unknown in their native country. One great object of our noticing these, is to impress upon lovers of fine shrubs the value of our indigenous species of hawthorns. (*Bot. Reg.*, Sept.)

*Arduia* *Dec.* syn: *Mespilus Aronia* *Willd.* The Aronia Thorn. Grows to a large size, and is, next to *C. maroccana* and *heterophylla*, the most like timber of all the thorns; a native of the Levant. *Bot. Reg.*, 1897.

This is a very showy species in its fruit. Its growth is rapid, forming a handsome head, "and on account of the great quantity of apricot-colored fruit with which it is loaded, is a suitable ornament for lawns and grass in pleasure grounds." (*Bot. Reg.*, Oct.)

*mexicana* *Dec.* Mexican Hawthorn. A hardy (?) small tree, with large white flowers; a native of Mexico; propagated readily by grafting upon the common hawthorn. *Bot. Reg.*, 1910.

A very beautiful species, though there is some doubt whether it will prove hardy in our severe climate. "The flowers are almost as large as those of some kinds of pear, and appearing, as they do, in abundance, from the rich green bosom of the leaves, produce a striking effect." The fruit is in some estimation amongst the Mexicans. Budded upon the common hawthorn, it makes shoots from five to seven feet long the first season. (*Bot. Reg.*, Nov.)

*glandulosa* var. *macrantha*, syn: *C. glandulosa* *Dec.* and *C. macrantha* *Loddiges* Long-spined glandular Hawthorn. *Bot. Reg.*, 1912.

"I entertain no doubt of its being a mere variety of *C. glandulosa*, possibly of hybrid extraction, between that species and *C. Chinensis*."—*Lindley*.

"A fine vigorous American thorn, forming a tree with a spreading head, and having fine dark green leaves, amongst which are intermixed stout curved spires of unusual length. It flowers in May, and produces an abundance of its deep vermilion red haws in the autumn." This variety is not noticed by any writers upon the wild trees of our country, and is probably of garden origin. (*Bot. Reg.*, Dec.)

#### ROSA

*sinica* *Lindl.* syn: *R. trifoliata* *Bosc* *R. ternata* *Poirat* *R. cherokeensis* *Donn* *R. nivea* *Dec.* *R. hystrix* *Lindl.* *monogr.* t 17. *R. invigata* *Mich.* Thrice-leaved China Rose. A species requiring a green-house; growth delicate; flowers pure white; a native of China. *Bot. Reg.*, 22.

The Cherokee rose is so well known that it is hardly necessary to describe it here: it has long been an inmate of our green-houses. Its beautiful foliage and snow white blossoms have given it a claim upon our care which few other roses, in their single state, can be said to possess. In England, it flourishes trained to a south wall, but in this country it requires the protection of a green-house. It is well suited for conservatories for training up a rafter; and the profusion of its white blossoms forms a pleasing contrast with the varied hues of the Greville and Boursalt. Dr. Lindley suggests the mixing of this species with some of the Chinese varieties, so as to impart to them, in a degree, the beauty and delicacy of its foliage. We have no doubt that, with a judicious intermixture, it might be used to some benefit. (*Bot. Reg.*, Jan.)

In this order is now to be found in bloom many very beautiful roses. In Mr. Sweetser's garden Noisette Lamarque has been very splendid: it has just shed its last blossoms; this variety is a very free flowering kind, and its robust habit renders it easily manageable. We have now tea strombio in full flower: the monthly cabbage rose, said to be excellent, is also budded. Smith's yellow Noisette, and the yellow tea roses, are scarce, but they are now blooming wherever kept. Hardy roses, in the open garden, have had their shoots mostly destroyed in the vicinity of Boston the past winter. Tree roses, where not protected, have suffered badly.

### *Leguminosæ.*

#### TRIFOLIUM

*fulvum* Lindl. Farded Clover. An annual species, with cream-colored flowers; appearing in June; grows in black peaty soil; a native of California. *Bot. Reg.*, 1885.

Introduced by Mr. Douglas to the Horticultural Society's garden in 1835, but ripening no seeds, was afterwards lost. It is desirable in a garden, and we should judge that patches of it in the border would have a pleasing appearance. This species belongs to the curious class whose bracts collect into one involucre, like those of an umbelliferous plant: it is one of the handsomest of the genus. (*Bot. Reg.*, Aug.)

#### LUPINUS

*latifolius* Agardh Broad-leaved Lupin. A hardy perennial plant, with light purple flowers; appearing from July to September; increased by seeds and by division of the roots; a native of California. *Bot. Reg.*, 1891.

Apparently distinct from both *L. rivularis* and *L. littoralis*, to which, however, it approaches more nearly than to *L. polyphyllus*. Like all the perennial lupinus, it is a desirable plant for the border.

Dr. Agardh, in his *Synop. Gen. Lupini*, has described seventy-six species: of these Mr. Douglas collected the immense number of thirty-four. (*Bot. Reg.*, Sept.)

#### CYTISUS

*scoticus* Gussone Æolian Cytisus. A green-house plant; growing from two to three feet high; flowers of a light yellow; appearing in May; a native of Italy. *Bot. Reg.*, 1902.

Very few of the cytisuses are cultivated in our collections, except the common one *C. Laburnum*. They are scarcely hardy enough to endure our climate, and needing the protection of the green-house is probably the cause of their neglect. This species is very pretty. The seeds were received from Prof. Tenore, at Naples. It is a native of Stromboli, in Italy, where it was discovered by Prof. Gussone. Seeds communicated to W. F. Strangways produced flowers last season. (*Bot. Reg.*, Oct.)

*GENISTA*, (of doubtful meaning. It is said to be derived from *genu*, the knee, because the branches are flexible, like the knee joint.)

*monosperma* Gussone syn: *Spartium monospermum* Linn. Single-seeded Genista. A slender green-house shrub; growing four or five feet high; with white flowers; appearing in May and June; propagated by seeds and cuttings; a native of Sicily. *Bot. Reg.*, 1918.

Not beautiful, but "one of the most deliciously fragrant shrubs in the world. It is difficult to imagine any thing more delicate and grateful than the sweet odor that its tender snow-white blossoms diffuse in the conservatory, in the months of May and June." The plate represents a leafless slender branch, from which spring out two lateral racemes of flowers, somewhat resembling an orobus. It is a native of the shores of the Mediterranean, extending along the coasts of Barbary, Sicily and Greece, and gaining its eastern limit upon Mount Sinai. It cannot bear the cold of the French shore. The drawing was taken from a plant that flowered in the Epsom Nursery of the Messrs. Young. This will be a valuable addition to our green-houses, which are now so limited in their fragrant plants, and we hope will be speedily introduced. (*Bot. Reg.*, Dec.)

#### ACACIA

*vestita* Cass. Cunningham's Acacia. An evergreen green-house shrub; growing from four to six feet high; flowers bright yellow; appearing in April and May; propagated by cuttings; grown in loam and peat; a native of New Holland. *Pax. Mag. Bot.*

One of the most graceful of this beautiful tribe of plants. The *A. longifolia*, *verticillata*, *armata* and *lophantha* are old inhabitants of our green-houses, and to some collections have been added many new species; but we believe the *A. vestita* is rarely to be met with. Some years since we saw a plant at Mr. Hogg's, New York, which, from our faint recollection, resembled this: it is called *conspicua* in some catalogues, and this was the name under which the one we saw opened its blossoms. They are produced in the greatest abundance upon all the terminal shoots, which are gracefully pendant, and the foliage of the plant is scarcely seen; we consider it as far more elegant than any of the others we have seen, and it should be in every collection; its easy growth and its great beauty entitle it to general cultivation. (*Pax. Mag. Bot.*, Aug.)

#### ERYTHRINA

*Crista-alli* L. Cock's-comb Coral Tree. A stove plant; growing from six to twelve feet high; flowers velvety crimson; appearing at various seasons; propagated by cuttings; grown in loam, peat and dung. *Pax. Mag. Bot.*

Though this has long been grown in the English gardens, and noticed in all their works upon gardening, still it has not yet attracted a great deal of attention among our amateurs or nurserymen; we rarely see it in the collections of the former, and plants cannot generally be purchased of the latter. We presume this has arisen from the supposition that it could not be made to produce its brilliant blossoms without the aid of a stove. It may, however, be treated in the same manner as the dahlia, and its gorgeous spikes of flowers have a splendid appearance, in the open garden, in autumn. To produce flowers at any other season, it must have the temperature of the stove; but it will annually flower in great perfection treated precisely like the dahlia. No garden should be without a plant. (*Pax. Mag. Bot.*, Sept.)

#### HOVEA

*Celsi* Bonp. Cels's Hovea. A green-house shrub; growing from two to four feet high; with blue flowers; appearing in June and July; increased by cuttings and seeds; cultivated in sandy loam and peat. *Pax. Mag. Bot.*

One of the handsomest of the New Holland Leguminæ, but difficult to cultivate, and rarely to be met with in collections; it has never yet produced its flowers in this country, and plants are with difficulty kept in a healthy state; it is one of those which puzzle all the efforts of the amateur gardener in trying to bring to a flowering state. The habit of the plant is not vigorous in its greatest health. The flowers are produced in axillary clusters, in such numbers as to clothe the branches with them, and being of a deep rich blue, have an elegant appearance. It is worthy all the care that can be given it, and we yet hope it will be made to produce its blossoms in our green-houses. (*Pax. Mag. Bot.*, Dec.)



**EUTAXIA R. Brown**

*pungens* Swt. syn: *Dillwynia pungens* Cunn. MSS. Pungent-leaved Eutaxia. A green-house shrub; growing from two to four feet high; with orange and yellow flowers; appearing in May and June; propagated by cuttings; cultivated in loam, peat and sand; a native of New Holland. *Past. Mag. Bot.*

This, and the *E. myrtifolia*, are the only two species of the genus Eutaxia; the latter is to be found in many collections, and is an exceedingly beautiful plant; but the *E. pungens* is stated to be considerably handsomer. The flowers are produced in dense heads, near the extremities of the branches, and are very showy. The foliage is longer and handsomer than the *myrtifolia*. (*Paz. Mag. Bot.*, Dec.)

*Eutaxia myrtifolia* is now displaying its flowers in the collection of Mr. Towne.

**Stackhousiææ.**

**STACKHOUSIA** (so named in honor of the late John Stackhouse, Esq., F. L. S., of Pen-darvis, in Cornwall, author of a splendid work on Submarine Plants.—*Smith.*)

*monogyna* Lab. Pink-tipped Stackhouseia. A half hardy perennial plant; growing two feet high; with white flowers; appearing in April and May; a native of Van Dieman's Land. *Bot. Reg.*, 1917.

A neat herbaceous plant, with terminal spikes of white flowers, the tips of which are touched with pink, from whence its name.

The genus *Stackhousia* has hitherto contained only two species, but Dr. Lindley has dried specimens of three others, all natives of New Holland and Van Dieman's Land. *S. monogyna*, if it should prove a hardy perennial, would be a valuable plant. (*Bot. Reg.*, Dec.)

**Pittosporææ.**

*Sollya heterophylla*. This pretty little evergreen twiner is now displaying its pendulous light blue flowers, trained to the trellis on the back wall of the conservatory at Belmont Place. It is planted out into the ground, and will probably, in a short time, cover a large space. Though not showy, its delicate blue flowers are pleasing objects among the deep green foliage.

**Geraniææ.**

Geraniums are now displaying their beautiful blossoms wherever grown. At Mr. Cushing's, Belmont Place, there is quite a display. Those we noticed that were fine were *Adelinæ*, a rosy one with deep red pencilling, *Admiral Nelson*, a red one with dark lines, and *Mary Queen of Scots*. At Mr. Wilder's, some new kinds are in bloom; and at Mr. Sweetser's, some fine sorts are out. In our collection two very excellent ones, *Bougainvilleidnum* and *Sylvèrii*, are in flower: the former is a rosy one, with red lines; the latter a crimson, with darker pencilling. The fine collections of Messrs. Hogg and others, in New York, will be in full beauty by the time this appears in print.

**Balsaminææ.**

**TROPEOLUM**

*brachyceras* Hooker et Arnott. Short-spurred Tropæolum. A training green-house plant; with yellow flowers; appearing during summer; increased by seeds and by the roots; a native of Valparaiso. *Bot. Reg.*, 1926.

The tropæolums, excepting the common *T. majas* and its varieties, are all delicate little twining plants, with singular blossoms. The Canary bird flower, *T. peregrinum*, is an exact resemblance of this domestic songster, and the *T. pentaphyllum* and *tricolorum* are both elegant plants; to these the present one may be added, "forming the prettiest possible match" for the last of the above, "whose habit it possesses, with a substitution of clear, delicate yellow in the petals for the rich crimson of that species." It was introduced some years since, but was lost; and the drawing was taken from a plant which was received from Valparaiso, in 1836. Dr. Lindley states that there are yet two species,

"*T. polyphyllum*, whose flowers grow in heads as large as the first, and *T. azureum*, which, to the herbage of *T. tricolor*, adds the color of the deep blue of the Siberian larkspur." None of the species, except the common garden one, are yet common in our collections. (*Bot. Reg.*, Jan.)

### Begoniaceæ.

#### BEGONIA

*platifolia* *Platanus-leaved Begonia*. A shrubby stove plant; growing from eight to ten feet high; with rose colored flowers; appearing in autumn; propagated by cuttings; cultivated in light loamy rich soil; a native of Brazil. *Pax. Mag. Bot.*

Though this tribe of plants is but little cultivated in our gardens, there are yet some handsome individuals belonging to it: the subject of the present remarks is an exception to the above; it is possessed of much beauty, and is deserving a place in every stove. The flowers are large, and freely produced, appearing in abundance among the large and handsome foliage. It is said to flower freely around Paris, where it is extensively grown, but in England is shy of producing bloom. Easily cultivated. (*Pax. Mag. Bot.*, July.)

### DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

#### Ericaceæ.

#### AZALEA

? var. *Rawsoni* *Pax.* *O. Rawson's Azalea*. A bushy shrub; growing about two feet high; with deep red flowers; appearing in April and May; propagated by cuttings; cultivated in leaf soil and heath mould. *Pax. Mag. Bot.*

Mr. Menzies, who raised the variety *Rawsoni*, states as his belief, that it was "produced between the *A. indica* var. *phœnicea* and the *Rhododendron caucasicum atrovirens*."

From the appearance of the figure, very splendid. Each shoot is terminated with three flowers of the deepest crimson, and this number is stated to be invariably produced. It will form a fine addition to the increasing number of varieties of the Indian azaleas, which are among the most ornamental and free growing plants of the green-house or conservatory. They are also particularly adapted for house culture, where they may be made to display their flowers without trouble. *A. var. Rawsoni* is a very desirable plant. (*Pax. Mag. Bot.*, July.)

#### RHODODENDRON

*chemicistus* *L.* *Ground-cistus Rhododendron*. A dwarf green-house shrub; with pale pink blossoms; appearing in spring; propagated by cuttings; cultivated in peat and sand.

This is the most dwarf of all the rhododendrons, scarcely exceeding a few inches in height; the growth of the whole plant is entirely different from the other species, so much so that it would not be known, by many as belonging to the same genus. The flowers are delicate, of a pale pink or flesh color, and appear in threes upon short terminal branches. It is a species which should be in every collection of plants. Though not showy, it possesses more elegance and gracefulness than any plant we are acquainted with. Seeds were first transmitted to Messrs. Loddiges, in 1786, from whence plants were raised; since that time it has found its way into most all English collections. It is a native of Austria, and though needing protection in England, will, we think, from its native locality, be hardy in our gardens. It requires a shaded situation. (*Pax. Mag. Bot.*, Sept.)

In this order, no plants contribute so much to the beauty of the green-house in winter as the tribe of heaths. Where there is a good collection, not a day passes, from September to April, but there is a continual display of blossoms; and to what flower shall we look for equal delicacy of coloring? to what class shall we turn and find such varied and yet pleasing forms? Indeed few, if any, plants, can claim our admiration in such a degree as the heath. Wherever grown, they are now displaying their ever beautiful blossoms.

At Belmont Place, *E. versita coccinea*, *ventricosa superba*, and a seedling raised by Mr. Carter, of the Botanic Garden, Cambridge, are displaying their blossoms. *E. ardens* has been most splendid, but is now past its prime.

At Mr. Towne's, *E. rubida*, one of the handsomest, is about throwing out a second crop of flowers; this species is exceedingly desirable on account of its early blooming: a cutting a year old will show flowers. *E. pubescens minor* is also full of its exquisite little pink corols. *E. tubiflora* and *ventricosa*, the former elegant, were also, at a late day, still expanding fresh flowers.

We have ourselves *E. rubida*, *baccans* and *castra* (?) in bloom; we greatly admire the *baccans*; *rubida* is just beginning to expand, and will be charming in a few days. Much attention has lately been given to *ericas*; and we hope another season will find the amateurs around Boston and New York progressing rapidly towards growing good collections.

### *Lobeliaceæ.*

#### CLINTONIA

*pulchella* Lindl. Pretty Clintonia. An annual plant; growing four or five inches high; with purple and white flowers; increased by seed; a native of California. Bot. Reg., 1909.

Another of the many beautiful annuals discovered by Douglas on the coast of California, the seeds of which he sent to the London Horticultural Society. It somewhat resembles *C. elegans*, and, like that, is so slender in its habit, and so shy of ripening seeds, that it will only be kept in collections with considerable care. *C. elegans*, planted in patches of light rich soil, presents a lovely appearance, with its azure blue and white flowers. In its wild state, *C. pulchella* is much smaller than *C. elegans*. (*Bot. Reg.*, Nov.)

### *Asteraceæ.*

CRASPEDIA (said to be so called from *fringe*, in allusion to the feathery pappus.—*Forst.*)

*glauca* Spreng. Glaucous Craspedia. An herbaceous frays plant: growing a foot or more in height, with yellow flowers: appearing in spring. A native of Van Diemen's Land. Bot. Reg., 1908.

A singular plant, with dense heads of yellow flowers, possessing considerable beauty. It is quite different from other compound flowers, and is deserving of a place in any garden. (*Bot. Reg.*, Nov.)

#### ROUANTHE Lindl.

*Manglei* Lindl. Capt. Mangle's Rodanthe. An annual plant: growing a foot high: with rose colored flowers: propagated by seeds: cultivated in loam: a native of New Holland. Pax. Mag. Bot.

A very splendid annual, with rose colored flowers, delicate foliage, and exquisite habit. "No plant," Mr. Paxton says, "can be more desirable, or worthy of a place in the flower garden, than the present; for beauty and loveliness of flowers, it gives way to none; for freedom of disposition to produce them, it stands unexcelled." It is probably one of the latest and finest acquisitions to our gardens. The seeds may be sown at various seasons, and by successive plantings, and, with the aid of a green-house, they may be made to flower nearly the whole year. It is a most desirable plant for the green-house, where its delicate blossoms will expand in greater perfection than in the open air. Seeds are ripened in abundance. Seeds of it have been planted in our garden this spring, and a copious supply of flowers may be anticipated in the summer. (*Pax. Mag. Bot.*)

### *Cinchoniaceæ.*

RONDELETIA Plum. (so named by Plumier after Guillaume Rondelet, a physician and naturalist, born in 1507, died in 1566.—*De Theis.*)

*odorata* Dec. ayn: *R. speciosa* Hort. Sweet-scented Rondeletia. A stove shrub; growing from four to six feet high; with vermilion colored flowers; appearing in December; a native of Havana. Bot. Reg., 1915.

A pretty species of this small genus, with fragrant vermilion blos-

soms, appearing in terminal corymbs or bunches. It is a native of Havana, where it was found by Jacquin, growing on "bush-covered rocks, near the sea," and sometimes upon the naked rock itself; he describes it as an "inelegant straggling shrub, about six feet high," and states that its flowers are "as sweet-scented as violets." Cultivated in a stove, this odor exists only in a slight degree. It requires the heat of the stove the year through, and will not bear to be exposed to the open air of Britain even in the summer. Drawn from the collection of the Messrs. Loddiges, in 1834. (*Bot. Reg.*, Nov.)

### *Polemonidææ.*

#### *GILLIA*

*tenuiflora* Lindl. Slender-flowered Gillia. A hardy annual; growing two feet high; with violet and rose colored flowers; appearing in August; increased by seeds; a native of California. *Bot. Reg.*, 1838.

Less beautiful than any of the gillias heretofore introduced. It was discovered by Mr. Douglas, and sent home under the name of *G. splendens*; but Dr. Lindley has not thought it deserving of that appellation. The habit of the plant is very slender; the flowers are smaller than the *G. tricolor*, and are of a clear violet color on the inside, and a pale rose on the outside; the latter color "is much affected by the presence of innumerable short deep red lines, which are as delicate as if they were drawn with the point of a needle." This species will form a good companion to the *G. tricolor*, when grown in a pot; and its tiny violet colored blossoms will be a desirable addition to the nosegays of winter. For border cultivation it will be scarcely worth planting. (*Bot. Reg.*, Sept.)

#### *LEPTOSIPHON Benth.* (literally slender-tube, in allusion to the structure of the corolla.)

*androsæus* Benth. Androsæus-like Leptosiphon. A hardy annual; growing about a foot high; with flowers varying from white to blue; appearing in June and July; a native of California; introduced in 1832. *Pax. Mag. Bot.*

A very beautiful hardy annual, with dense capitate corymbs of long slender corollas, varying in their hue from white to pale blue and pink: at the base of these corymbs are a number of floral leaves, from the centre of which arise the flowers. It is a native of California, and is one of the rich acquisitions of Mr. Douglass. It does not thrive during the hot weather of summer, but its flowers are produced in perfection when the nights are cool, with heavy dews; the seeds should consequently either be sown in the fall, to have them bloom in early spring, or in June, to flower in autumn. It will flourish in a shady situation. Its seeds are sparingly produced. (*Pax. Mag. Bot.*, Nov.)

*densiflorus* Benth. Thick-flowered Leptosiphon. A hardy annual; growing about ten inches in height; with flowers varying from white to blue; appearing in June and July; a native of California. *Pax. Mag. Bot.*

Differing from *L. androsæus* in its flowers, which are three times as large and with a much shorter tube; they are not produced so numerously, and, taken altogether, this species is much inferior to the former. Its habit and mode of cultivation are the same. Introduced by Mr. Douglas. (*Pax. Mag. Bot.*, Nov.)

### *Myrsinidææ.*

#### *ARDISIA* (from *ardis*, the point of a weapon, in allusion to the sharp-pointed segments of the corolla.)

*odontophylla* Alph. Des. Tooth-leaved Ardisia. A stove shrub; growing four feet and upwards in height; with pale salmon colored flowers; appearing in July; a native of Bencal. *Bot. Reg.*, 1822.

"Independently of its being, like all the ardisias, a handsome evergreen, this species is remarkable for its delicious fragrance." The flowers are produced in axillary racemes, gracefully pendulous, and of a pale salmon color; the foliage is very handsome. Flowered for the first time in England in the Exotic Nursery of Mr. Knight. All the ardisias should be in stove collections. Both in foliage and flowers, and particularly in their fruit, they are always ornamental. (*Bot. Reg.*, Sept.)

*Primulacæ.*

**DOUGLAS'S** Lindl. (In compliment to Mr. Douglas, whose zeal in the collection of seeds and plants, and whose untimely end, have richly earned for him a niche in the long gallery of departed science.)

*nivâlis* Lindl. *Snowy Douglasia.* A hardy perennial herbaceous plant; growing a foot or more in height; with purple flowers, appearing in June (?); increased by seeds; a native of the Rocky Mountains; introduced in 1829. *Bot. Reg.*, 1836.

This genus is commemorative of the indefatigable zeal of the late Mr. Douglas, in collecting seeds and plants. Perhaps it may be thought by some that a more showy plant might have been selected, among the very many which he has described, for adding thereto his name—one that would be more likely to be generally diffused in gardens than in all probability the present subject ever will. But botanists seem not to regard this. The genus *Linnaea* is composed of only one species and one variety, plants not growing more than three or four inches high, and rarely known, only in botanical works, beyond their native localities. *Douglasia nivâlis* will, however, carry down his name to posterity, and wherever it is grown, it will not fail to remind the amateur of the untimely fate of this excellent botanist, and of the value to our gardens of the numerous plants and shrubs he discovered and introduced into Britain. From an account, published by Dr. Lindley, in *Brande's Journal*, in 1828, we learn that—

“Upon his [Mr. Douglas's] journey across the Rocky Mountains, in April, 1827, in latitude 52° N., longitude 118° W., at an estimated elevation of 12,000 feet above the level of the sea, the attention of Mr. Douglas was attracted by a brilliant purple patch amidst the surrounding snow. On approaching it, he was surprised to find that the color which had arrested his eye was caused by the blossoms of a little plant, from which the superincumbent snow had not yet melted away. The well known *Saxifraga oppositifolia* immediately occurred to his recollection, and he at first imagined he had either discovered that species, or one nearly allied to it; but, upon a closer inspection, he perceived that it was not a *Saxifraga*, but a genus apparently new.”

From the description of the plant, drawn up from specimens, submitted to Dr. Lindley for examination, we condense the following: Stems round, with rigid branched short hairs, densely clothed with opposite spreading leaves; leaves dull glaucous green, semi-amplexicaul, linear obtuse, covered with hairs; flowers of a vivid purple, infundibuliform, proceeding from the axils of the upper leaves, from three to six on each branch; they are at first sessile, but their footstalks subsequently lengthen; calyx hairy, obconical, angular, about the length of the tube, which is ventricose, and rather longer than the calyx; limb spreading, five-parted, with cuneate oblong, obtuse segments; anthers linear, oblong, nearly sessile; ovary superior, obovate one-celled; capsule of a cartilaginous texture, surrounded by the persistent calyx, one-celled, with five recurring valves; seeds two peltate oblong. From these characters, Dr. Lindley refers the plant to *Primulacæ*.

Since the above account was published, plants have been raised from seeds collected by Mr. Douglas, in California, in the London Horticultural Society's garden, where they flowered in July, 1835, and subsequently in April, 1836. It grows freely in peat and sand, and ripens its seeds in small quantities. Only two plants were raised at first, and these were kept in the green-house; but it is probable that it will thrive best with the treatment of Alpine plants; undoubtedly it would flourish better in our gardens than in those of Britain.

The flowers are very numerous, entirely covering the plant; and, from its early blooming and Alpine character, will prove a valuable addition to our collections; as it ripens seeds, it will be, probably, soon introduced. (*Bot. Reg.*, Sept.)

We have now in bloom a fine specimen of *Dodecâtheon integrifolium*; it has thrown up a flower stem about twenty inches in height, which is terminated with upwards of twenty-five exquisite white blossoms, and ten or twelve buds not yet expanded. It is a charming object, and is the only one we have ever seen in collections around Boston. It is, we believe, perfectly hardy, and may be grown in the open border; but that does not prevent its being grown in pots in the green-house, where it shows to much more advantage than if standing in the open ground: nothing can exceed the gracefulness of its blossoms or the snowy whiteness of its petals.

### *Scrophulariææ.*

#### *APTOSIMUM Burchell*

*depressum Benth. MSS. syn: Ruëllia depressa Thurb. ? Ohlendörffia procumbens Lehm. Depressed Aptosimum.* A green-house under shrub: growing two or more feet high; with pale blue flowers; a native of the Cape of Good Hope. Bot. Reg., 1882.

A very beautiful, prostrate growing shrub, with numerous pale blue flowers, marked, on the inner part of each limb, with a darker spot. It was not in English collections in August last, the drawing and description having been communicated by Dr. Lehmann, of Hamburg, under whose care it was raised. It was brought to Europe by the celebrated botanist, Mr. Ecklon, who found it in the Karro, near Hermanskraal, on the Great Fish River, flowering from October to December. This plant is nearly allied to *Salpiglossis*.

In the text Dr. Lindley enumerates six other species of *Aptosimum*. (*Bot. Reg.*, July.)

*ANTIRRHINUM L.* (The name, which may be literally rendered Snoutwort, has obviously been derived from the appearance of the corolla, which resembles the snout of some animal.)

*glandulosum Lindl.* Glandular Snap-dragon. A hardy annual; growing from one to two feet high; with rose and yellow flowers; appearing in August and September; increased by seeds; cultivated in common soil; a native of California. Bot. Reg., 1893.

A very pretty annual snap-dragon, found by Mr. Douglas in California, and said to be the "first species of the genus *Antirrhinum* which has been found certainly wild in the New World." The *A. Orontium* that are to be met with in this country are supposed to have been introduced from Europe. The present subject grows erect, and is terminated with a long dense raceme of handsome flowers, which are rose colored on the outside, and ochre colored on the inner; it will grow in any soil, and ripens its seeds freely. A very desirable annual. (*Bot. Reg.*, Sept.)

#### *PENTSTEMON*

*heterophyllum Lindl.* Various-leaved Pentstemon. A hardy herbaceous plant; growing from one to two feet high; with purple flowers; appearing from June to October; propagated by cuttings and seeds; cultivated in common soil; a native of California. Bot. Reg., 1899.

A very beautiful species of this fine tribe, with erect purple flowers. The stems are rather woody, and, if not supported, fall to the ground. and throw out lateral shoots. Introduced by Mr. Douglas from California, and raised in the Horticultural Society's garden. (*Bot. Reg.*, Oct.)

*Murrayanus Hook.* Mr. Murray's scarlet Pentstemon. A hardy perennial plant; growing from four to five feet high; with bright scarlet flowers; appearing throughout the latter part of summer and autumn; propagated by seeds; a native of the Texas. Pax. Mag. Bot.

One of the most brilliant pentstemons that has ever been introduced: it was discovered by the late Mr. Drummond at San Felipe, in Texas, and seeds were transmitted to the Glasgow Botanic Garden, in 1835. The flowers spring from the axils of the leaves, and are produced in branched racemes of from two to six each, rather drooping from the length of the peduncle. The nearest approach to this is the *P. speciosum*, which is less readily increased and cultivated. The present sub-

ject will flourish in any soil, but prefers a sandy peat. On the dried wild specimen in the possession of Dr. Hooker, *fifty-six* flowers were counted. Cultivated with care, this number will undoubtedly be greatly increased. Named after Mr. Murray, the curator of the Botanic Garden at Glasgow. (*Pax. Mag. Bot.*, Dec.)

#### MIMULUS

*cardinalis* Lindl. Scarlet-flowered Mimulus. An herbaceous green-house plant; growing from four to six feet; with scarlet flowers; appearing from July to September; propagated by seeds and suckers; grown in loam and leaf mould. *Pax. Mag. Bot.*

A very robust species, growing six feet and upwards in height, introduced from California by Mr. Douglas. It is a very rapid grower, reaching the height above before fall: it is then covered with its singular scarlet blossoms, which are produced on long, erect, solitary footstalks. The plants should be repotted frequently, to have them attain a good size, and during summer they may be plunged in the border, where they will advance their flower stems at a rapid rate; those frequently shifted from February to June, and then set in the border, grew *seven* feet from the base of the stem. It flourishes in a soil of loam and leaf mould, and, when blooming, requires a great quantity of water. It is the most showy one that has been introduced, and is well adapted for autumn flowering when the salvias, lobelias, &c., are displaying their brilliant colored blossoms. We possess a few plants, which will bloom in the course of the summer. (*Pax. Mag. Bot.* Oct.)

We have just seen (April 22d,) at Belmont Place, several fine mimuluses in bloom: the showiest of these was one called Marshal's new red; each limb of the corolla being marked with a large dark brown spot, in the same manner of the three lower ones on the true *M. Smithii*. It is one of the most desirable we have ever observed: the seeds were received from Liverpool. All the new mimuluses are pretty for pot culture, and deserving of extensive cultivation.

*Collinsia bicolor*.—See in our i. p. 194; additional information, supplied by Mr. Paxton, states that when sown "in summer they do not last long, the generality of their roots being small and fibrous; they are in consequence apt to get scorched by the sun; but when sown in autumn, where the plants are intended to produce their flowers the succeeding spring, nothing can surpass the richness its masses of cheerful blue flowers present." We have now plants in pots, the seeds of which were sown in February, which are over a foot high, and yet show no signs of flowering: we shall turn them into the border in a few days, when we expect a charming display. Like many other plants in this order, they will not bear our hot sun.

*Calceolaria pallida*, a plant of, is now flowering at Mr. Towne's, and has expanded upwards of two hundred of its lovely pale yellow flowers: the plant is four feet high and is one of the prettiest objects we have seen for a long time: several new ones will soon begin to throw up their flower buds in the same collection.

### Verbenæceæ.

#### CLERODENDRON

*speciosissimum* Beautiful scarlet Clerodendron. A green-house branching shrub; with rich scarlet flowers; appearing in August and September; propagated by cuttings; cultivated in heath mould, loam, and vegetable mould. *Pax. Mag. Bot.*

A very fine plant, from the appearance of the figure, which was communicated by Messrs. Lucombe, Prince and Co., Nuserymen, Exeter, in whose collection it flowered, and who have furnished the following information respecting the species:—

"The *Clerodendron speciosissimum* may be looked upon as one of the greatest acquisitions to our ornamental conservatory, and summer border plants, that has yet been introduced. The plant which furnished the sample of our drawing is in the house, but we have also a very fine one planted out in the border: the plant in the house we have treat-

ed with a temperature of from 65° to 70°, with a plentiful supply of water: it has grown amazingly, and is now a fine plant, four feet high, covered with beautiful luxuriant foliage, and each shoot terminated with large spreading panicles of rich scarlet flowers, each flower two inches long; and the whole plant having open, all at once, several hundred blossoms. It has now been in this splendid state for more than six weeks, and promises to continue quite as long again. It thrives in equal parts of heath mould, loam and vegetable soil, and delights in being frequently washed with the syringe." Cuttings of the young wood root freely in sand under a bell-glass. To the above description we need only add, that from the appearance of the plate it must be a splendid acquisition to our gardens. (*Pax. Mag. Bot. Nov.*)

Some remarks on the beauty of the *Verbena chamædrifolia* will be found in p. 165. We have, since writing them, seen this little gem growing in a tub in the stove at Belmont Place: its shoots had extended many feet over the sides, and were just beginning to open their dazzling blossoms. *Verbena venosa* is a beautiful annual, and a bed of it forms a pleasing contrast with one of the *V. chamædrifolia*.

### *Labiæ.*

*Gardoquia Hookeri* Bentham (See our i. p. 228.) From another figure in *Paxton's Magazine of Botany* for December, and some remarks upon the plant, we learn "that to ensure a good growth and a free state of flowering, it is necessary to keep the plant almost constantly excited, and to do this no place is better adapted than a green-house kept rather close. A plant at Chatsworth kept in the stove assumes a delicate and drawn appearance, while others, in a small house, intermediate between that and the green-house, look healthy, form handsome plants, flowering abundantly and richly from the latter part of May until late in October." The best soil is a mixture of loam and peat: the watering should be carefully done, or the plants will suffer: the draining of the pots should be also attended to. Cuttings root in sand, under a bell-glass, in a gentle heat. Mr. Buist, of Philadelphia, possesses this species. It is a native of the mountains of South Carolina, where the seeds were gathered by Alexander Gordon, and transmitted to London, from whence plants have been imported by Mr. Buist. The foliage is extremely delicate, while the flowers are nearly as large, and as brilliant, as the *Salvia splendens*.

### *Hydrophyllæ.*

#### PHACELIA

*vinifolia* Paxton. Vine-leaved Phacelia. A hardy annual; growing about eighteen inches high; flowers bright blue; appearing in the autumn; increased by seeds; a native of Texas. *Pax. Mag. Bot.*

A neat little annual, discovered by Mr. Drummond, in Texas: the flowers are small but produced in considerable abundance, though not crowded, and are of a very bright blue: the habit of the plant is neat, and its foliage handsome. It will grow in any rich soil. (*Pax. Mag. Bot.*, July.)

*Phacelia tanacetifolia* is now in flower at Mr. Cushing's, Belmont Place: the plants were raised from seeds received from Mrs. Marryatt: it is a much prettier species than the above. The flowers are at first disposed in clusters, which extend in length as they open, until they become one-sided in-curved racemes: they are not handsome for pot culture, but only suitable for border cultivation.

*NEMOPHILA Nuttall* (from *Nemos*, a grove, *philos*, to love; in allusion to the partiality of this species to grow in a shady place.)

*insignis* Benth. Showy Nemophila. A half hardy annual; growing about a foot high; with deep blue flowers; appearing all summer; increased by seeds; cultivated in light rich soil; a native of California. *Pax. Mag. Bot.*



Nothing can be prettier than this little plant: it is already in some gardens, and has been occasionally noticed by us in our second volume. The plants have somewhat the habit of an *eschscholtzia*, and are extremely prolific in large flowers, one inch in diameter, which are deep blue within, and of a paler hue without: towards the centre of the corolla the blue shades into a soft white: it is one of the rich treasures collected by Douglas, in California. Mr. Paxton states that "if sown as early as the season will permit, in the spring, on a warm south border, observing to transplant when the weather is fine, and the plants pretty strong, a brilliant display of its rich blue blossoms will be produced, which will continue beautiful a great part of the season." He also states that a small bed filled with the *Nemóphila insignis*, another with *Verbena chamædrifolia*, and a third with *Eschscholtzia crócea*, "alternating and diversifying the colors of each, will make a very showy appearance until October." To the above we might also add the *Verbena venósa*. We should like to see patches of each of these planted in this manner, particularly of *Nemóphila insignis* and *Eschscholtzia crócea*: two more showy annuals are not to be found. *Pax. Mag. Bot.*, Aug.)

Pots of *N. insignis* are now in full splendor in the conservatory at Belmont Place; and the rambling stems, overhanging the pots, covered with masses of deep blue flowers, were the most pleasing objects which we have lately seen. It is an excellent plant for pot culture, thriving in peat and loam, and apparently well suited to the cool temperature of the green-house: during the hot days of our summer the plants do not display their flowers near so well as in autumn, when the temperature is cooler; with heavy dews.

## MONOCOTYLEDONOUS PLANTS.

### *Commeliníacæ.*

#### DICHORIZANDRA

*thyrsiflora* Mik. *Thyrse-flowered Dichorizandra*. A perennial stove plant: growing from three to four feet high; flowers of a bright rich blue; appearing in autumn; increased by seeds and division of the roots; cultivated in loam, peat, and vegetable mould; a native of Brazil. *Pax. Mag. Bot.*

A very showy autumnal flowering stove plant, with dense spikes or thyrses of rich blue flowers: Mr. Paxton states that it is highly worthy of cultivation, as it is easily grown, and flowers freely. The plants, when in a growing state, delight in a superabundance of moisture, and should be frequently syringed. Raised from seeds, some years since: introduced from Brazil. (*Pax. Mag. Bot.*, July.)

### *Amaryllacæ.*

#### ISMENE

*Amnicæa* Herb. syn: *Pancrætium Amnicæa*. *Narcissus-flowered Ismene*. A bulbous stove perennial; growing two feet high; with yellow flowers; appearing in May or June; increased by offsets; cultivated in turfy loam, sand and peat; a native of Peru. *Pax. Mag. Bot.*

A splendid bulbous plant, rare in English collections, and to be found in but few in this country: the bulb throws up a flower stem to the height of two feet, which is terminated with a head, of from three to six flowers, according to the strength of the bulb; they are of a deep rich yellow, about six inches in length, and delightfully fragrant. No collection of *Amaryllacæ* should be without it. (*Pax. Mag. Bot.*, Jan.)

This species is noticed as having displayed its blossoms for the first time in this country at Belmont Place, in our I. p. 229. Last year the same bulb did not produce any flowers; but it is now throwing up a strong spike, which will probably open its truly superb and odoriferous blossoms towards the middle of May. At the same place several *amaryllises* are in bloom.

## Iridaceæ.

## IRIS

*alata* Distr. syn: *I. scorpioides* Desf. *I. microptera* Vahl. *I. transtaganæ* Brot. Small-winged Iris. A green-house plant; growing about a foot high; with various colored flowers; appearing in March; increased by division of the roots; cultivated like the other species; a native of Algiers. Bot. Reg., 1876.

A very pretty species, a native of Algiers: it is also said to be a native of sterile meadows and rocks in Sicily, and common in Portugal and Spain, at the foot of hills. In England it produced its blossoms, which are blue; and beautifully marked, in a border, with no other protection than a common mat. The flowers have a pleasant smell, between that of the hyacinth and the elder. (*Bot. Reg.*, July.)

*LA PEYROUSIA* Pour. (In compliment to Mons. Picot de la Peyrouse, author of figures on Pyrenean Plants, and a short history of the Pyrenean Flora.)

*anceps* Kerr. Two-edged *La Peyrousia*. A green-house plant; growing about six inches high; with white flowers; appearing in June and July; increased by offsets and seeds; a native of the Cape of Good Hope. Bot. Reg., 1903.

A pretty little plant, long known, "having nothing to boast of in point of rich coloring or fantastical structure, but with a pretty modest aspect, and a delicate, delightful perfume." The plants throw up short dense spikes of white flowers, which perfect seeds in October. It has generally been kept under green-house culture, but will thrive in a cold frame. (*Bot. Reg.*, Oct.)

## SISYRINCHIUM

*graminifolium* var. *pœmillum* Lindl. A green-house plant; growing six or eight inches high; with yellow flowers; appearing in May; increased by division of the roots and by seeds; a native of Valparaiso. Bot. Reg., 1915.

Stated to be "a beautiful little perennial, found on the mountains near Valparaiso and Conception." The flowers are small, of a deep yellow, with a purple spot at the base of each division, and appearing tolerably numerous. It should be treated as a frame plant, where it would succeed better than in the green-house. The plant first flowered in May last, in the garden of Robert Mangles, Esq.

Dr. Lindley remarks, that it "is not a little remarkable that none of the many wealthy cultivators of flowers should not have thought of constructing moveable glass-houses, that should be only erected during winter, and totally removed after the end of the frosts in spring," for the purpose of growing those species and varieties of plants which succeed better in a situation protected from frost and damp in winter, but without artificial heat. "A thousand pounds so expended would produce a far greater result than three thousand applied in the common manner; and the annual cost of keeping such houses in order would be nothing compared with the expense of green-houses and stoves." These same remarks will very well apply to our own cultivators. When it is recollected how many very fine plants require only mere protection from severe frosts to produce their blossoms, it is somewhat to be wondered that there have not been such erected. The magnificent hybrid rhododendrons, the magnolias, azaleas, pæonies, ericas, and, indeed, numerous other plants which we could mention, might be as well or healthier cultivated in such a situation than in ordinary green-houses. We hope the subject will attract the attention of our amateurs. In this country, where all kinds of labor and fuel are so enormously high, it becomes an object of some considerable importance to devise the cheapest means of procuring the greatest enjoyment from a collection of plants; and in no way can this be done more economically than by the erection of glass cases without flues, but built in such a manner as to exclude the cold as much as possible, so that, by the aid of a few mats, or straw, in the severest weather, the temperature may not fall much below the freezing point. In such a house a far finer display of flowers, of those splendid tribes of plants we have just named, will be produced, than in the green-house. (*Bot. Reg.*, Dec.)

# WITSÉNIA

*corymbosa* Smith. Corymbose Witsénia. An evergreen green-house plant; growing a foot or more in height; with small blue flowers; appearing in August and September; cultivated in sandy peat; a native of the Cape of Good Hope. Pax. Mag. Bot.

An old inhabitant of green-house collections in England, "by no means a despicable plant;" the flowers are small, bright blue, and are produced in dense corymbs at the extremity of the principal shoots. The plant has green lance-shaped leaves, that contrast prettily with the blue flowers. Mr. Paxton informs us that it is "one of the many that require particularly steady attention in cultivation: the plant should be allowed plenty of pot room; and, when well established, sandy peat may be made use of: they should not stand where the air is freely admitted to them. (Pax. Mag. Bot. Jan.,)

In this order we have now in bloom *Sparaxis versicolor*, and two other species or varieties; they are all charming at this season. *Trichonema puparascens* is just beginning to open its slender spikes of pale purple or lilac colored blossoms. A species of *Fxia*, received for *I. maculata*, but which appears to be *I. capitata*, is also exceedingly elegant; the bulbs have thrown up stems about two feet high, which are terminated by a capitate head of delicate white flowers, the base of each petal marked with deep blue. *I. viridiflora* and several others will be in flower soon.

## Orchidaceæ.

The great length to which the present article has extended has rendered it necessary for us to defer giving the notice of the plants of this order until our next: a very short description of each will then appear.

Besides the plants in flower as enumerated in the above orders, the following may be named:—In *Ranunculaceæ*, *Adonis vernalis* is now adorning the border with its lovely golden blossoms; a patch, or patches, of it, is indispensable to the flower garden at this season, when so few of Flora's votaries deign to greet our eyes with their fair blossoms. At Mr. Sweetser's, ranunculuses, in pots, are now blooming; and in our garden, some ten or twelve pots of plants will be in their greatest beauty in the course of a week or two. At Mr. Lathe's, a bed of several hundred is gorgeous with various colored flowers. *Clématis florida* flore pleno is blooming, at Belmont Place, in the conservatory: in *Papaveraceæ*, at the same place, *Eschscholtzia crœcea* is surpassingly splendid, where, from ten till two o'clock of every sun-shiny day, a number of pots of plants of it are displaying their elegant orange yellow flowers; in *Cactaceæ*, *Epiphyllum Ackermanni* is opening its magnificent blossoms; Mr. Haggerston informed us that a late flower measured eight inches in diameter; *C. Vandesia* is also finely budded: in *Melastomaceæ*, *Melastoma atromelia* is making a fine show; and in *Scrophulariaceæ*, *Schizanthus diffusus* and *pinnatus* are the showiest ornaments of the conservatory; some of the plants are six feet high, and covered with blossoms the whole distance up. At Mr. Cushing's, also, in *Asphodeliaceæ*, *Lachenalia versicolor* yet remains in beauty. In *Myrsiniaceæ*, *Ardisia crenulata*, in the stove, is most splendid, with its numerous umbels of shining scarlet berries; in *Rubiaceæ*, *Exostemma longiflora*, singular for its pancratium-like flowers, is ornamental; in *Malvaceæ*, as usual, throughout the season here, *Hibiscus Rosa sinensis*, the double varieties of, are full of their superb blossoms. In *Myrtaceæ*, *Callistemon speciosus* and *lanceolatus*, (formerly belonging to *Metrosideros*, and so called now in many gardens,) have each, in our collection, opened several of their showy flowers; and in *Rutaceæ*, *Diosma capitata* is charming, with its abundant heads of purple flowers.

*Correa speciosa* is elegant at Mr. Towne's. In Leguminæ, *Wistaria Consequana*, at Mr. Wilder's, is opening one cluster of flowers, upon a very small plant in a small pot.

*Timely hints to the Floriculturist.*—The season has now so far advanced that the operation of planting the flower borders may now commence. From the first to the fifteenth of the month, sowings should be made of all those hardy varieties of annuals which it is desirable to have early in bloom: we do not intend the floriculturist to understand by this that the same seeds, planted later in the season, will not display their blossoms,—far from it; on the contrary, many kinds which are generally sown during the first part of this month, would flower much finer if the operation were delayed a few weeks. Many persons err in supposing that it is useless to plant seeds, unless the same can be got into the ground before the frost is scarcely out in the spring; some of the hardiest annuals should be planted in the fall; but, as a general time to plant half hardy and tender ones, we should say from the fifteenth of this month to the tenth of June. A great number of the fine new Californian ones should not be planted till after this last date, as the flowers would be burnt up if they appeared in summer. Were this rule adopted for a greater part of all annuals, we should not hear such frequent complaints to the seedsmen of the vitality of seeds, as we now do. It may be well here to remark that all plants with long spindle-shaped roots do not flourish so well after transplanting, and hence such as poppies, *eschscholtzias*, *argemones*, larkspurs and others, should be sown in situations where they are to remain to flower for the season. Sweet peas should be well soaked before sowing, as should also cypress vine seeds. Globe amaranthus seeds should be taken out of the hulls, and be soaked twenty-four hours, in milk and water, in a tepid state. Not more than five persons out of fifty ever get up globe seeds, and why? because they are planted, hulls and all, in the open ground, in April or May. After the seeds are soaked sufficiently, plant them in a warm situation in the border, which time should be the latter part of May or early in June, certainly not before the ground is warm; if there is a hot-bed at hand, the best way is to plant in a box in that.

By the twentieth of the month, when all danger of frost is over, the borders will be ready to receive many of the plants which have been grown in the green-house; where there are duplicate geraniums, the same should be turned out into clumps, where they will produce their flowers all summer. Fuchsias should be turned out in the same manner; no flowers are prettier than the different species and varieties. For dazzling effect, no plants are better suited than the *Salvia splendens* and *fulgens*; young plants, struck immediately from cuttings, and planted out about the twentieth, will form large bushes by autumn, and be covered with their scarlet blossoms. *S. involucrata* is pretty, but destitute of the brilliancy of the others. *Petunia phœnicea* and *nyctaginiflora*, with all the new varieties of them, should be turned out of pots into a rich part of the border: the effect of a bed of the *phœnicea* can only be conceived by an inspection of the same. *P. nyctaginiflora*, trained to a wall or trellis, on a westerly aspect, will present a profuseness of fragrant white flowers. The common dark China rose, *R. sanguinea*, is a most eligible plant for turning into the border; planted in a well manured spot, they will throw up strong suckers by autumn, which will be terminated with clusters of from ten to twenty flowers; the old common China is also well adapted to the same object.

## REVIEWS.

ART. I. *Address delivered before the Massachusetts Horticultural Society, at their Eighth Anniversary, Sept. 17, 1836.*  
By EZRA WESTON, Jr. Pamphlet, 8vo. pp. 40. Boston: 1836; with some observations on the prospects of the Society.

It must be a source of great pleasure to every patron of horticultural science in this vicinity, and especially to the members of the Massachusetts Horticultural Society, to observe the prosperous condition to which that Society has arrived within a few years. Commenced under happy auspices, and aided, supported, and encouraged by men of the first talents and abilities, it has gone on increasing in strength and power. By the late report of its President, read in its hall on the fourth of March, 1837, it would seem that its funds were in a highly prosperous condition, its respectability abroad such as to give it a high stand for usefulness and honor, while its sympathy and co-operation with distinguished societies, and the private efforts of individuals, have been repeatedly solicited. Deeply interested in its prosperity and welfare as is the writer, the question has often occurred to him, in what manner could it still be made more useful than now? A few observations on this point.

The President, in his report before alluded to, has dropped a valuable hint on the appropriation of its funds to the erection of a suitable building for the weekly exhibition of fruits and flowers, and, at the same time, capable of other uses, by which an income by rent should be constantly accruing to the treasury of the Society. With a prospective view of still increased utility, we are glad to perceive that he has also borne in mind the ultimate object, the establishment of an experimental garden. Whatever project may hasten the fulfilment of this scheme must be hailed with pleasure. The advantages which have arisen from the weekly exhibitions, and from the annual festivals, in growing and encouraging a taste for such pursuits, are incalculable. And yet much remains to be done. The Society may be considered as yet in its infancy,—an infancy, indeed, which gives a noble promise of a glorious manhood. We trust, therefore, that this suggestion of the President will be duly considered. A Society of upwards of three hundred immediate members should possess its own hall, suitable for all the purposes of scientific research and study. With such a generous provision, and thus only, can it sustain with increasing effect its credit, respectability and usefulness.

Its garden for experimental purposes is greatly needed. The unfortunate result of the one first established at Mount Auburn, has, it may be feared, induced many to think too little of its importance. On a very light and poor soil, and with the divided labors of the superintendent of the Cemetery, what could be reasonably expected? Such a garden, were it but a single acre, and its soil such as could not be surpassed, would require the constant and undivided attention of a first rate gardener. We do not overstate the matter,—indeed, we fear it has been too much neglected. For the correction of the synonymy of fruit, what a nice degree of care and skill is requisite! The analysis of physiological botany would be required, and act no mean part. The very mechanical operation of comparison in wood, bud, stem and leaves, as well as fruit, is a matter of no hasty judgment or practice. We appeal to that distinguished cultivator, the chairman of the Committee on Synonymes, in support of this assertion; and with the delightful acquaintance which we have the honor of possessing with the Pomologist of Salem, we well know, from his own practice, somewhat of that nicety of comparison and patience of research needed in such studies. Those truly munificent donations from the distinguished Van Mons, both to the Society and to individuals, important as they have been to cultivators, would be still greatly enhanced by the experiments and studies of the Society's gardens, and become still wider extended through an impartial distribution. What such individuals as Lowell and Manning are doing, the Society would do, and with greater means, because undivided by the cares of business, or the engagements of other and higher studies which press upon their time. Nor would their co-operation with its labors be in the least impaired, but the rather assisted and encouraged.

But this Society is not simply a pomological institution. Every year introduces to our notice some new, rare, perhaps valuable, vegetable production for the table, besides fruits. Almost every foreign journal makes us acquainted with the latest discovered improvement on old varieties, or hitherto unknown species, worthy of experiment. Where but in such an institution should they be fairly tested? Where but within its precincts could every experiment be made on their best cultivation? Where but under the fostering care of its gardener could they receive the most constant and unprejudiced attention? Where could they be more zealously watched, or more patiently investigated? From whence could their recommendation or their condemnation, as valuable or worthless, as suitable to our climate or to a more southern, as proper for this soil or that, better emanate? What is the case now? We ask for no purpose of censure or complaint. Who has fairly tested the *Oxalis crenata*, the *Quinoa*, (*Chenopodium Quinoa*), of Chili? Distributed as now, neither new seeds nor

fruits, in the very nature of the case, can receive that attention which they demand. A single year's experience is nothing; a trial in *one* soil alone is next to useless; a starveling growth in a green-house, or a too rapid endeavor at acclimation, are not fair tests. When the Arracacha, (*Arracacia esculenta*), from South America, was introduced to notice a few years ago, it shared, for aught we know, the same fate to which the *Oxalis crenata* seems to be inclined. Had the now gorgeous dahlia, on its first introduction, been denied the almost innumerable trials for improvement, and rejected as a flaunting rose or nankin, or purple-flowering gigantic weed, our parterres and borders would have been destitute of their greatest autumnal attractions. Whatever may produce for us a new and valuable root or esculent, is surely as worthy of deep and mature consideration and patient attention; and while Pomona is lavishing her golden treasures in the halls of the institution, the no less necessary and far more indispensable products, which we receive more directly from the earth, should hold an honorable place on its tables, and receive a kindred attention; and in no more certain way could this be effected than by the primary labors of the experimental garden.

Go with me, kind reader! to the Society's exhibition, some sunny day of June, and cast your eyes around the indescribably beautiful display of that single favorite flower, the rose, there blushing and breathing, in unrivalled elegance, under a thousand wonderful varieties. *Pyramids of roses*, from the delicate Scotch, or twining Ayrshire, with their fine pure white, purple, or golden petals, to the monstrous hundred leaved, or compact double Chinese hybrid varieties,—from the sweet scented eglantine, gathered in the next pasture, to the fine white, or yellow tea plant of China; kinds, too, bearing the well known names of distinguished florists, as Boursalt and Noisette, rise from the tables, or grace the walls. The skill of the florist and the amateur are called into action and combination. A splendid amaryllis, or a long fringed crinum from some conservatory, may perchance be discovered among this group; perchance a gorgeous bouquet, or two of other productions of flowery June. Or wait, reader! till the cooler months of September and October, nay, even until the first steps of November remind us of winter's approach, and then, when roses and lilies have long faded, other and rival floral gems in the many dyed dahlia occupy the flower stands. Beside the three great epochs in the florist's year, the tulip, the rose, and the dahlia seasons, you will find all the new and rare productions of the garden which taste and a laudable zeal could command. This weekly display, so generously opened to the public every Saturday morning, gives you a fair estimate of the floral department of the Society. Nor is its generosity unrewarded; the crowded halls, filled with the fashion, beauty and science of

the public, attest the estimation of the privilege to snatch a passing glimpse at nature.

But the Massachusetts Horticultural Society is neither exclusively pomological nor floricultural. That spirit which dictated, in the words of its constitution, the appointment of "Lecturers on Botany and Vegetable Physiology, on Entomology, so far as it relates to Horticulture, and on Horticultural Chemistry," intended a higher and more purely scientific field of operation than the mere production and exhibition of a new fruit or flower. To make these departments useful, a greater and better opportunity for their researches is needed. We speak more particularly now of the first of these. The distribution of the few (often, perhaps, exceedingly rare,) seeds, which the Society receive from distinguished correspondents abroad, among so many individuals, though, perhaps, unavoidable under the present system, is yet an exceedingly bad mode of operation. Should they be some splendid or ornamental production, they appear again at some future exhibition; but be they the rarest botanical gems of the vegetable kingdom, provided they do not dazzle the eye with brilliancy of color, or perfume the air with a delicious odor, they perish too often an untimely death in the neglected seed beds of the florist. Nor is this any thing wonderful. Any one may be a florist, but few florists are botanists. A botanist's and a florist's flower, too, are very different affairs; yet horticulture recognizes the one with no less attention than it does the other. With an experimental garden this would be otherwise: to it should all seeds be first directed. A perfect specimen of every plant raised, embracing as much of its roots, stem, leaves, flowers and seed as are necessary, should be carefully preserved for the herbarium of the Society. Its relative merits should be reported at some proper time. Thus, besides gradually collecting an invaluable herbarium for the cabinets of the Society, the florist or the botanist would receive from the Society's gardens whatever seeds, scions, cuttings, or the like, to which they may be justly entitled.

Beside the collection of Cape of Good Hope bulbs and seeds, lately received from the Baron Von Ludwig, and which may be found in the green-houses and collections of several members of the Society, and with whom some of which have flowered, we lately noticed the transmission of a package of seeds from that distinguished botanist, Dr. Fischer, of St. Petersburg. From such a source we may expect whatever is new and rare. To that region of the north, and from the Imperial Gardens, over which Dr. Fischer has been for several years a Professor, we are already indebted for much that is interesting and curious in the floral world. Whoever have received them in their distribution, by the "Committee on Flowers," would render a distin-



guished service to the Society, to report, at some future meeting, the result of their experiments, and to present for preservation at the hall a specimen of each, with its name and locality as received. Should the Librarian after the exhibition cause such to be properly dried, numbered, labelled, &c. after the directions of the Articles II. and IV. of the By-Laws, a great object would be accomplished, in the absence of a garden and its proper management, with its necessary accompaniments, a cabinet, herbarium, and collections of seeds and plants.

Having long felt the great need of some method for rendering the studies of comparison and analysis more easy and sure, beside that which already exists in the Society's library, and in the free, kind and generous spirit for extension of valuable information on the part of the several committees on fruits and flowers, it is easy to imagine that some such system like the above would greatly promote this end. The florist as well as the botanist often needs the use of the cabinet and the garden for consultation, to consider with precision and on unquestioned authority the synonyme, or correct name of his plants. He may not be content with such uncertain and indefinite titles to the pests of his labors as the *bug and the fly*, the cut worm and the grub; but in order to meet his insidious and crafty foe, he would know more of its transmutations, study its habits, detect its operations, and check its depredations. Nor might he be satisfied with the mechanical knowledge of the propriety of this or that soil to successful cultivation, but would fain learn all the secrets of its chemical action. It were necessary, then, that he should be better provided and furnished with specimens and drawings, preparations, and other apparatus deposited in the hall of the Society, and accessible to inspection and examination. If a spur has been already given to the great subject of horticulture in the vicinity of Boston by the means possessed—means so inadequate to its vastness and importance—if by the exertions of individuals and the diffusion of correct principles, through the combined efforts of the members of this Society in its comparative infancy—what incalculable advantageous results may be anticipated for the future, with greater facilities and ampler means. We could wish to see a similar and simultaneous attention to the science, as well as the practice, of this noble art; that seizing nature in the very midst of its busy operations, we should bend its secret designs and intentions to our designs. The field of action to the fructist and to the florist is almost boundless, and the wonderful results of their researches into the mysteries of their several departments of study are incalculable; but it needs the constant aid of a scientific spirit and taste to render them, with any degree of certainty, effective and brilliant.

It was with such sentiments as these that we laid down Mr.

Weston's address before the Massachusetts Horticultural Society, on its eighth anniversary. This gentleman has happily alluded to the importance of horticultural pursuits, independent of their claim as a means of innocent amusement. He conceives that the generous spirit manifested in the weekly exhibitions before alluded to, has had a good moral effect, not only on those who contribute, but upon those who frequent them as casual spectators; that such should be patronized for their intrinsic merits, as affording equally the man of business and of leisure a source of improvement and pleasure; that upon the public mind they are capable of exercising a similar influence as a gallery of paintings or statuary.

Digressing from the usual track of these addresses, necessarily confined in their character to the peculiar bearings which the subject holds with the pursuits of their several authors; and professing neither an extensive practical or theoretical knowledge, yet deeply interested in the good and beautiful of this department of science, Mr. Weston has contrived to introduce to our notice some of the more remarkable facts and discoveries in vegetable physiology which have distinguished the present age. Claiming no originality of his own, he has conferred no small benefit, in the dissemination of correct principles of others, by giving to an extended circle of readers a condensed and clear exposition of what might have been otherwise difficult to obtain. This modest eulogium on the distinguished services of Sir Joseph Banks, Mr. Knight, and lastly, the venerable Van Mons, was peculiarly an appropriate subject for such an occasion, and before such a Society. We consider it a happy effort to introduce to the notice of its members and of the public, and to interest them in behalf of science, some of the most curious and attractive subjects connected with horticultural pursuits.

In the address, reference is made to the efforts of Mr. Knight in producing new fruits by cross impregnation. "This method," observes Mr. Weston, "is complicated, and he never appears to have carried the experiment to much length, and it is also a method somewhat uncertain." In the succeeding remarks, he shows, from the direct testimony of Sir Joseph Banks, and the universal testimony of experience, that the best fruits have been raised from seed carefully selected. This fact serves as an introduction to his exposition of the beautiful experiments of Van Mons, instituted on the very same principle; which experiments, continued for nearly half a century, under almost every possible discouragement, have conferred an immense benefit to this country and to Europe, in the origin and increase of the finest fruits.

We have thus introduced this sketch of the address, because we fear the language above quoted has been misunderstood. In justice to the writer, we add our own conviction of the perfect

correctness of his position. Mr. Knight was indeed eminently successful in his experiments. Some of the best fruits of our catalogues were the result of this process. Nevertheless it is a delicate process, subject to tedious anxiety and long patience, in expectation of something exceedingly good among considerable that may be poor and mean. Seedling fruits, as was well known before the results and methods of Van Mons's theory were ascertained, were long coming to perfection, or even into bearing. It were necessary to wait many years, in the ordinary method, for each new production to acquire sufficient strength to make blossom buds, and bear the long wished for fruit. The data which the Belgian horticulturist has given, by which to judge from the leaves and stems respecting the quality of the fruit, were not before known with any degree of certainty. Left to the ordinary course of things, the pear, procured by cross impregnation, must require nearly twenty years to have a fair trial, and the apple and plum their proportionate time; or aided by all the then known effects of early grafting on stocks of a smaller and slower growth, and other expedients, still the chance of a good and standard fruit among a host of inferior ones was very uncertain. This has been very lately exemplified in the floricultural line. From thirty thousand seedling dahlias at Widnall's, (a celebrated dahlia grower in England,) six only were deemed worthy of further care; and every mere tyro in floriculture well knows that from his impregnated plants the chance of success is only proportional to the number of seedlings. We are told that the superb *Rhododéndron álta clerénse* was one of eighteen hundred seedlings from impregnated parentage. With these, and a thousand other instances of the uncertainty of impregnated seedlings answering the expectations of the fruit and flower grower, it was very properly observed, that "the method was complicated and somewhat uncertain." That this was Mr. Weston's opinion of the relative advantages of the system of Knight and of Van Mons we have no doubt; and with our knowledge of the latter's success from his own peculiar method, we must also coincide with this sentiment. To the florist, cross impregnation will always be valuable, as affording him an almost illimitable field in the production of those vegetable monsters, his peculiar delight and pride—curious, wonderful and admirable, as works of art and modifications of nature; but wholly thrown out of the sympathy of the botanist, except as instances of the mysteries of vegetable physiology in its strange metamorphoses under constrained and artificial circumstances. To the kitchen gardener, and even to the agriculturist, it is a subject of importance in the possible production of some new and valuable variety of grain, root, or the like, from old and long known races. By this mode, after a series of experiments, undoubtedly many of the more tender plants of

southern latitudes could be made to survive, in their modified offspring, the rigors of a more northern clime. The benefits which Mr. Knight has conferred on horticulture by his skill and experiments, not only in cross impregnation, but in other branches of his study, need no comment. His name will endure, a proud monument of philanthropy, exercised in pursuits at once dignified and useful.

We close as we begun, with congratulation at the prospects of the Society. We trust that every means will be taken to promote its interests, by rendering it capable of extensive influence on the happiness and welfare of the community.

JOHN LEWIS RUSSELL.

## ART. II. *Literary Notices.*

Part I. of the second volume of *Chandler and Booth's Illustrations of the Camellia*, containing four beautifully colored plates, with the history and description of each, was to appear in London on the first of April. In Imp. 4to. 10s. 6d. each.

The *Orchidaceæ of Mexico and Guatemala*, by James Bateman, Esq., is to appear early in May. Only one hundred and twenty-five copies will be published, and each part will be raised to non subscribers from one guinea and a half, (the subscribers' price,) to two guineas. This work will not interfere with Dr. Lindley's *Sertum Orchideum*, as an arrangement has been made, by which the same species will not be figured in the respective publications. The first number of the latter work, (as a specimen,) will also appear in May.

A *Horticultural Tour through Germany, Belgium, and France*, during 1836, by James Forbes, F. H. S., author of the *Hortus Woburnensis*, is to appear in May. It will be published in royal and demy 8vo.

The Hon. and Rev. Wm. Herbert's new work on *Amaryllaceæ*, which has been announced for some time, was to certainly appear in April.

Dr. Lindley has in a state of considerable forwardness the second volume of *Ladies' Botany*, which will perfect the work.

A *Botanical Lexicon* of the terms, facts, and doctrines of Vegetable Physiology, by the Rev. Patrick Keith, F. L. S., in 1 vol. 8vo., with numerous illustrations, is nearly ready.

No. I. of *The Flower-garden*, by James Rennie, M. A., assisted by several eminent florists and amateurs, to be completed in six or eight monthly parts, will soon be published. It will contain directions for the cultivation of Annuals, Biennials, Perennials, and Green-house and Hot-house plants in general. To be illustrated with plates. Price 1s. each part.

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## MISCELLANEOUS INTELLIGENCE.

### ART. I. General Notice.

*The Stumps of the Silver Fir, (A'bies Picea,) increase in diameter after the tree is felled.*—M. Dutrochet, wishing to verify this fact, which he had previously observed in 1833, procured, in 1835, from the forests of the Jura, several stumps of this tree, which were in a living state when taken up. One, which was the stump of a tree felled in 1821, had thus been increasing in diameter during fourteen years: the new wood and bark being easily distinguishable from the former wood and bark, which were in a state of incipient decomposition.

The total thickness of the fourteen layers of this new ligneous production was 5.669 lines, (nearly half an inch,) in the vertical part of the stump; and this thickness is increased to about 8.032 lines, (three quarters of an inch,) in the ligneous part of the callosity, (*bourrelet*,) protruded over a part of the section made by the axe. Another stump was that of a tree felled in 1743, and it was still full of life when it was examined, at the commencement of the year 1836. The wood formed since the tree was felled consisted of ninety-two layers, the total thickness of which was nearly two inches. The wood of which the stump was composed, when the tree was felled, entirely disappeared; and the thick rim, or callosity, which had formed round the margin, had curled over so as almost to cover the top of the stump. This stump, which had lived and increased in diameter during ninety-two years, would, in all probability, have endured much longer; so that we are ignorant how far this singular prolongation of life and increase of growth may extend in stumps deprived of their trunk and leaves, and which only receive liquid nourishment from the roots. It results from this, that the growth of trees in diameter is the result of a local development; and that the organic matter of this increase does not descend from the upper parts of the trunk, as some physiologists still think. (*L'Hermes*, Dec. 24, 1836, translated into the *Gard. Mag.* for March.)

ART. II. *Foreign Notices.*

## ENGLAND.

*Double Chinese Primrose.*—A double variety of this beautiful plant has lately been exhibited before the London Horticultural Society. The flower is finely fringed, and is stated to have been obtained by strongly fertilizing a plant which, before, was never known to have any tendency of approaching to doubleness. A silver Knightian medal was awarded to Mr. J. Henderson, the grower of this desirable plant.—*Cond.*

*West's St. Peter's Grape.*—Fine specimens of this grape were lately exhibited at one of the ordinary meetings of the London Horticultural Society. They were sent by Mr. Paxton from the gardens of the Duke of Devonshire. Mr. Paxton, in an accompanying letter, states, that "it was never known to fail under any management, however bad, and never to shrink at the shoulder of the bunch, a very common defect in other varieties." We know not that this variety (the *true*), is in our gardens; it should, however, be introduced.—*Id.*

*Dry rot in Dahlias.*—There appears to be, according to an account in the *Horticultural Journal* for January, a general complaint among dahlia growers of a sort of rot, which has attacked the roots, from the stalks downwards, and, in many cases, the tubers have fallen away. Among others which have suffered are the Countess of Sheffield and Sir H. Fletcher, both fine kinds. No cause is assigned, but it appears to be the same disease which is frequent among the collections of our amateurs. In our late visit to New York and Philadelphia we did not see a root which had suffered in this manner; and we can only attribute it, in the vicinity of Boston, to the sudden cutting off of the plants by early frosts, when they were in full vigor; thus, not allowing the tubers to arrive at a mature state. Were the season longer, so as to allow the plants to exhaust their strength in flowering, their roots would, probably, attain a greater firmness. Plants grown in pots, and sheltered in the fall so as to prevent the tops from being destroyed, always have fine roots. It is well known that all tuberous roots, the potato for instance, when dug before they are fully grown, will shrivel and decay long previous to those which perfect their growth. We are not aware of the character of the season in England last fall, but we believe the plants were destroyed by earlier frosts than is usual; if so, we shall be more confirmed in our opinion of the cause of this kind of rot.—*Id.*

ART. III. *Domestic Notices.*

*Early Grapes.*—Mr. Cowan, gardener to Col. Perkins, at Brookline, informs us that he cut several bunches of finely ripened grapes on the 12th of April. The pit was put into operation early in December, (as noticed by us at p. 28,) and the vines were in bloom in January. Last year grapes were cut from the same vines, but not until the 30th of April, making a difference of eighteen days. Next season, by forcing a fortnight earlier, grapes will be obtained in March; and if the same system is pursued by Mr. Cowan the next year after, the season of their bearing will be exactly reversed. Under Mr. Cowan's excellent management, the vines have produced a great crop.—*Cand.*

**Prize-fighter Cucumber.**—We have lately seen this variety in full bearing at Belmont Place, where, in the new pit erected last autumn, the vines are growing, and producing an immense number of fine fruits. The vines are planted at one end of the pit, and are trained upon a wire trellis, about eight inches from the surface of the soil, near the glass. We have never seen any plants that were more prolific of fruit; some of the largest would measure nearly eighteen inches in length. Mr. Haggerston thinks it is much preferable for early forcing to Walker's long green. We first introduced this variety three years since; but the seeds were planted in an exhausted hot-bed, and the vines did not flourish remarkably well: from this cause we had an unfavorable impression of its excellency, and have not since grown it, nor have ever seen it until a late visit at Belmont Place; fortunately, however, we saved the seeds of two very long fruits, the only fine ones the vines produced. Another season we shall give it a trial under favorable circumstances.—*Id.*

**The Forty-fold Potato.**—We again notice this fine variety, in order to direct the attention of cultivators to the great importance of planting but one in each hill. An unfavorable impression has been received by many persons, of the character and quality of this potato, from the circumstance of their having been generally of a small size; this, however, is only attributable to a too light soil, not sufficiently manured, and to the error of planting from three to four potatoes, as is usual with common sorts, in each hill. A gentleman who raised some fifty or sixty bushels last season, has shown us some which weigh, at least, *half a pound* each; the average size being as large as any potatoes. He informs us that but one middling sized potato was put in each hill: still the produce was so great, that at each hoeing many of the potatoes showed themselves on the outside of the hills, and a peck was taken from some of them. We would have cultivators bear in mind the importance of planting but one potato in a hill, if large ones are desired.—*Id.*

#### ART. IV. Massachusetts Horticultural Society.

**Saturday, March 25th.—Exhibited.** From R. Manning, Salem, Winter Nelis, or Bonne Malinoise, pears: this variety has been noticed by Mr. Manning in a previous number of the present volume; the specimens were in a state for eating. From J. A. Kenrick, Newton, Rhode Island greening, Old Pearmain, Hubbardston Nonsuch, Flushing Spitzenberg, Gardener sweeting, and Seaver sweeting apples. From Jos. Sumner, Roxbury, sweet apples, which, from their excellency, the committee of the Horticultural Society have called the Sumner Sweeting.

**April 8th.—Exhibited.** From S. W. Cole, editor of the Yankee Farmer, Portland, Me., specimens of a new apple, called the Golden Ball; the committee called it a very beautiful apple. From B. V. French, Nonsuch, Baldwin, Yellow Newtown pippin, and Templeton Winter sweet. From Jas. Lebnard, Taunton, beurré Rance, or Hardenpont de Printemps pears. From E. Vose, Easter beurré pears.

**Distributed.** Scions of a new apple, called the Golden Ball, from S. W. Cole, Esq.

**April 15th, 1837.—Distributed.** A variety of vegetable seeds received from Benjamin Gardener, Esq., of Palermo, Sicily. Melon seeds received by J. M. Ives & Co. from London; and also a collection of seeds from the Rev. J. Pierpont, of Boston.

## ART. V. Faneuil Hall Market.

		From	To			From	To
<i>Roots, Tubers, &amp;c.</i>		\$ cts.	\$ cts.	<i>Squashes and Pumpkins.</i>		\$ cts.	\$ cts.
Potatoes :				Winter crookneck, per pound,		6	8
Common, { per barrel, . . .	1 25	1 50		Lima, per pound, . . . . .	none.		
{ per bushel, . . .	50	55		West India, per pound, . . .	3	4	
Chenangoes, { per barrel, . .	1 50	2 00		Pumpkins, each, . . . . .	12½	20	
{ per bushel, . . .	50	75					
Eastport, { per barrel, . . .	3 00			<i>Pot and Sweet Herbs.</i>			
{ per bushel, . . .	1 00	1 25		Parsley, per half peck, . . . .	25		
Nova Scotia, { per barrel, . .	2 00	2 50		Sage, per pound, . . . . .	17	20	
{ per bushel, . . .	75	1 00		Marjoram, per bunch, . . . .	6	12	
Turnips: common,				Savory, per bunch, . . . . .	6	12	
per bushel, . . . . .	1 00			Spearmint, per bunch, . . . .	6		
French, { per barrel, . . . .	1 50						
{ per bushel, . . . .	50	75		<i>Fruits.</i>			
Onions :				Apples, dessert :			
per bushel, . . . . .	1 50	2 00		Common, { per barrel, . . . .	2 00	2 50	
red, { per bunch, . . . . .	4	6		{ per bushel, . . . .	75	1 00	
white, { per bunch, . . . . .	4	6		N. Y. Pippins, { per barrel, . .	2 50	3 00	
New Onions, per bunch, . .	6			{ per bushel, . . . .	1 50	2 00	
Beets, per bushel, . . . . .	1 00			Russets, { per barrel, . . . .	2 00	2 50	
Carrots, per bushel, . . . .	1 00			{ per bushel, . . . .	1 00	1 25	
Parsnips, per bushel, . . . .	1 00			Baldwins, { per barrel, . . . .	2 00	2 50	
Salsify, per bunch, . . . . .	12½			{ per bushel, . . . .	1 00	1 25	
Horseradish, per pound, . . .	12½			Pears :			
Radishes, per bunch, . . . .				Baking, { per barrel, . . . .	3 50	4 00	
Scarlet Short top, . . . . .	10	12½		{ per bushel, . . . .	1 50	2 00	
Scarlet Turnip, . . . . .	10	12½		Watermelons, each, . . . . .	50	1 00	
Shallots, per pound, . . . . .	20			Cranberries, per bushel, . . .	6 00	7 00	
Garlic, per pound, . . . . .	14			Pine Apples, each, . . . . .	25	50	
<i>Cabbages, Salads, &amp;c.</i>				Grapes: (foreign,) per pound,			
Cabbages : per dozen,				White Malaga, . . . . .	25		
Savoy, . . . . .	75	1 00		Purple Malaga, . . . . .	20		
Drumhead, . . . . .	1 00	1 50		Cucumbers, each, . . . . .	25	50	
Red, . . . . .	1 00	1 50		Oranges, { per box, . . . . .	2 00	2 50	
Cauliflowers, each, . . . . .	25	50		{ per dozen, . . . . .	25	50	
Lettuce, per head, . . . . .	6	10		Lemons, { per box, . . . . .	2 75	3 00	
Rhubarb, per pound, . . . . .	37½			{ per dozen, . . . . .	25	37½	
Celery, per root, . . . . .	12½	25		Shaddocks, each, . . . . .	25		
Spinach, per peck, . . . . .	50			Walnuts, { per barrel, . . . .	4 00	4 50	
Dandelions, per peck, . . . .	25	33		{ per bushel, . . . .	2 25	2 50	
Cabbage sprouts, per peck, . .	25			Almonds, (sweet,) per pound, .	12	14	
Asparagus, per bunch, . . . .	25	37½		Filberts, per pound, . . . . .	4	6	
				Castana, . . . . .	3	6	

REMARKS. The month, up to this time, has been rather cool and dry; vegetation has progressed slowly, and, as yet, few seeds have been committed to the soil; we may not, therefore, anticipate remarkably early crops. Peas advance in growth with a measured pace, and unless warm weather approaches rapidly, there will be few in the market until the latter part of June; we hope, however, to see a change in the weather more favorable to early vegetation. Potatoes are the same as at our last report; the stock of prime ones is, however, becoming exhausted, though there are an abundance of middling and inferior ones on hand; Eastports, of superior quality, are nearly gone; but to take their place, there is yet a very good supply of Nova Scotias, which can be purchased at a much lower price. A few sweet potatoes have been lately received. A decided advance in the price of onions has



taken place since our last, when we stated that, though they were not scarce, yet they were but "moderately abundant;" our quotations show the advance; there are very few, or none, to be had in bunches; the first new ones of the season came to hand this week; they are yet small. Beets, carrots and parsnips have advanced a shade, and but few of the best quality remain. Radishes are more abundant, and as the forcing becomes less difficult, from the advancement of spring, the prices will fall. Of cabbages, the stock is well reduced; very few are to be found of any size. Cauliflowers are about gone. Lettuces are brought in now of superior quality. The first rhubarb came to hand just as we were making up our last report, and a few pounds have occasionally been received since. Spinach is scarce. Dandelions and cabbage sprouts have just made their appearance in the market. The first asparagus was cut this week, and several very good sized bunches have been received. No material alteration has taken place in squashes; neither a Canada or common crookneck are to be found; great quantities of West Indias, which are very large this season, have, however, been received, and, consequently, the scarcity of the former is not so much noticed.

As heretofore, in fruits, the market remains in a very inactive state. Sales are slow, and the stock sufficiently large. The great quantity of apples sent here from the south, last fall, completely glutted the market; as fine Baldwins and Russetts remain on hand as we have ever seen at this season; those who had a large stock held on too long for advanced prices. Baking pears are about gone. Cranberries still keep up; those of the spring picking are very scarce, and but a very small quantity have come to hand. Watermelons, from the West Indies, have been received this week; they were of good size. Since our last, cucumbers have been brought in, though rather sparingly; some fine ones, from twelve to fifteen inches long, have commanded the prices of our highest quotations. Oranges and lemons are abundant.—*Yours, M. T., Boston, April 22d, 1827.*

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## HORTICULTURAL MEMORANDA

### FOR MAY.

With the gardener this is the most busy month of the season; nearly all kinds of seeds require to be got into the ground, and all the various kinds of planting and transplanting, both of trees and shrubs, flowers and fruits, should be mostly finished by the end of the month: without good judgment and careful management a whole year is often lost. In the earlier part of the month, the borders should be prepared for digging, by clearing away all rubbish, cutting off the old flower stems, &c. Box edgings should be clipped, the dead places in the old ones reset, and where new edgings are wanting, no better time than now can be selected for the operation of putting in either cuttings or old roots. In the fruit garden, all trees left unpruned should be immediately finished: grafting may be yet performed successfully. Trees to be removed, especially if they are of a large size, should be done so, soon, particularly cherries and peaches. In the vegetable garden, continue to dig the beds, so that they may be ready for immediate planting. In the greenhouse, give occasional fumigations, to keep down the green fly, and also copious supplies of pure water to keep off that destructive little pest, the red spider. Give good airings, in order that the plants may not ap-

pear forced. In the stove, the temperature should not be allowed to fall below 60°.

#### FRUIT DEPARTMENT.

*Grape vines*, in the grapery, will be now flowering: keep up the temperature so that the fruit will set well. Syringing should be omitted until the fruit is set. Continue to put in grape cuttings.

*Peach trees*, in pots, that were put in the cellar last fall, should be immediately taken out, if not done before.

*Strawberry beds* should be top-dressed, and the soil loosened between the rows. Beds set out in the fall, that have had many of the plants killed through the winter, should have the same replaced this spring. New beds do very well, in this climate, made now.

*Grafting* may yet be successfully performed.

*Raspberries* may be set out in new plantations.

#### FLOWER DEPARTMENT.

*Dahlia roots*: Plant these out about the middle of the month, if the weather is mild and the ground warm; select a good situation not too much exposed, and let the soil be *deep, rich and light*.

*Erythrina Crista galli* roots should be potted, placed in a warm room or other situation, and they will start rapidly.

*Annuals*, both hardy, half hardy and tender, must all be planted this month. (See in another page some hints on this subject.)

*Carnations*: plant out all those that have been wintered in pots into a larger size.

*Auriculas and polyanthuses* will have now about done blooming, and they should soon be removed to their summer residence.

*Tulips* should have the soil carefully loosened between the rows.

*Fuchsias and salvias*: (See our remarks in another page: both of these are remarkably handsome in the autumn.)

*Tuberoses, Tiger flowers, Gladiolus natalensis and floribundis*, should each be planted to produce good flowers.

*Camellias*: if these have about finished their growth, give them considerable heat, that they may form good strong flower buds in abundance.

*Ericas* should be propagated from cuttings at this time.

*Biennials and perennials* should be transplanted with care.

*Chrysanthemums*: about the middle of the month the old roots should be divided, or the plants struck from cuttings.

#### VEGETABLE DEPARTMENT.

*Asparagus beds* will soon be in full bearing. Be careful not to injure the young shoots in gathering the older ones.

*Rhubarb*: this may be forced by placing a barrel over the crown of each root, and nearly or quite covering it with some good fresh manure. The head to the barrel should be moveable, and the stalks can be cut as often as wanted.

*Cucumbers*, in frames, should now be allowed plenty of air, and the vines be kept moderately thinned. Keep up a brisk heat by additional linings; plant in pots, in the hot-bed, to transplant out into ridges in June.

*Celery seed*: plant for a main crop, if not done before; set out in beds, putting the plants six inches apart, each way, those which were sown in February and March.

*Tomatoes* should be planted against a south fence, in a very poor soil.

*Egg plants*, raised in the hot-bed, and now growing in small pots, should be turned out into the garden, selecting a warm spot, and enriching the soil with some well decomposed manure.

# THE MAGAZINE OF HORTICULTURE.

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JUNE, 1837.

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## ORIGINAL COMMUNICATIONS.

ART. I. *Notes on some of the Nurseries and Private Gardens in the neighborhood of New York and Philadelphia, visited in the early part of the month of March, 1837.* By the CONDUCTOR.

*Philadelphia.*—Since our remarks upon the gardens of this city, (vol. I. p. 161,) there has been a steady and gradual increase of a floricultural taste among the inhabitants. We then alluded to some of the causes which have tended to create a greater love for gardening in this city than in either New York or Boston, and which have placed it, in the scale of floriculture, the first in the country. The Pennsylvania Horticultural Society continues in its heretofore spirited state, and has just published its list of premiums, to be awarded for various flowers and fruits the approaching autumn. It has, by its annual exhibitions, tended greatly to diffuse a taste for horticulture, and the result has been the establishment of several private and some commercial gardens since our visit to this city. The principal one of the former is that of N. Biddle, Esq., situated on the Delaware, a few miles above Philadelphia. It is very extensive, and includes all the various gardening structures, such as graperies, peacheries.

The fine country residence of H. Pratt, Esq., for a long time the principal show garden of this city, and almost as well known as the celebrated Fairmount Water-works, near which it is situated, our readers are already aware, has passed out of the hands of its former proprietor, having been purchased, in the mania for speculation which has pervaded the country, for building lots, and is soon to share the same fate of many similar places

bought for that purpose. The collections of green and hot-house plants yet remain as they were when in the possession of Mr. Pratt, and Mr. Mackenzie now has charge of them. We believe, however, that it is the intention of the company who have purchased the place to sell them in the course of the coming season. It must be a great source of regret to the citizens of Philadelphia that this fine place, which has so long claimed the admiration of all strangers, as one of the finest specimens of a taste for gardening in the country, is to be destroyed.

Within a year past, a cemetery has been established, on a somewhat similar plan to that at Mount Auburn, in the vicinity of Boston. The entrance gate-way was just being finished, and the grounds being put in order. The site chosen for the cemetery is that known as Laurel Hill, about five miles from the city, on the road leading by the Girard College. It adjoins the country seat of George Pepper, Esq., a gentleman of great taste in horticulture, and possessing one of the finest city gardens it has ever been our pleasure to visit. We believe Mr. Pepper was one of the first to carry the idea of a cemetery into execution.

The ground is tolerably well wooded, and though not possessing any of the natural beauties of Mount Auburn, it will be, from its late high keeping, as a country residence, a beautiful place, and will require but a small part of the expense to put it into order that it would have done had an uncultivated spot been selected.

Philadelphia has long been noted for her nurseries, and those of Mr. Carr and the Messrs. Landreth date the commencement of their establishment at a very early period, when the practice of horticulture in this country was confined to a very limited number of individuals; but there are others which have sprung up but a few years since, which equal, if not excel, these old establishments in the number and variety of new and rare exotic plants;—among them may be mentioned that of Mr. Buist; his collection of plants is very complete, and he is continually adding to his stock every thing that is new and choice. Some account of this garden will be found in our I. p. 203; but since that time it has much improved in its character, and now occupies a more noted place among the commercial gardens of this city. We shall commence with an account of this establishment.

*R. Buist's Exotic Nursery.*—Since the spring of 1835, the time of our last visit to this place, Mr. Buist has erected a camellia house and a small stove. The former is about fifty feet in length, and twenty in width, and is built with a slope to the north instead of the south, as is usual in the erection of all similar structures. We are glad that Mr. Buist has adopted this method: the camellia has now become so popular a flower, and the varieties are so numerous, that there will probably soon be erected

houses exclusively for their cultivation; and we would here suggest to those gentlemen who intend to build such, the propriety of constructing them with a slope to the north. The camellia will not flourish in a house exposed to the direct rays of the sun; and it would be certainly preferable to grow them in a house facing the north, where they do not fall but an hour or two in the middle of the day, and then so obliquely as to destroy all their power, than in ordinary ones, where the plants always require to be shaded, to prevent them from being scorched. The flowers also remain in perfection a greater length of time, and the air of the house is not kept in such a continual state of aridity, which is very injurious to the well doing of the plants. We noticed that Mr. Buist has the camellias placed at a good distance from the glass; this we much approve of: we know from our own personal experience that camellias, placed upon a stage near the glass, rarely make a healthy growth, and, when growing in small pots, the continual variation of the state of the soil is extremely prejudicial to their health. No plants will bear growing at a greater distance from the glass than camellias.

The interior of this house is constructed with a front shelf, about four feet in width; between this and the back border is the walk. In the border are planted out several camellias at various distances, and the space between them is filled with plants in pots. The front shelf was filled with azaleas and other plants, which prefer a cool temperature and shady situation. Of camellias Mr. Buist has a considerable number; but his stock is, just at this time, very much reduced. We observed but very few large plants; these have been mostly purchased by amateurs making collections of this splendid flower, who are zealous to procure strong and well furnished plants. Mr. Buist has raised one very fine seedling, which he is now propagating as fast as nature and art will allow, so as to possess a stock before he lets it go out. It is a white flower, well formed, with a distinct red stripe through the centre of each petal; another seedling was just showing color, and promised to be a white one. [Since these remarks were written we have learnt that it has expanded, and that it is a double white of surpassing beauty, equal, if not superior, in elegance, to the old double white, and only to be appreciated from an actual inspection of the flower. This is saying considerable in its favor; but we see no reason why a seedling equally as good as the double white should not be obtained in this country as well as by the Chinese: there can be no doubt but that it was by mere accident that this fine old variety, as well as all the double Chinese ones, was produced.] We shall give a correct description of it when we shall have become acquainted with its character. Mr. Buist has three seedlings, raised by J. B. Smith, Esq., of this city; the names are Philadelphia, Ne

plus ultra, and Pennsylvania; of their respective colors and merit we have no knowledge, but have learnt that they are very fine. Mr. Buist is propagating them as fast as possible. We found several kinds in bloom; among others, *C. j. var. glória mundi*, *Ròssi*, *Ròsa mundi*, *aucubæfòlia*, *coccínea*, *compácta*, *Goussònia*; *fúlgens* is a very showy red one, with a large flower and loose petals; *Fairlea*, a pretty red, faintly touched with white; *Vandesia* is nearly the color of *corállina*, but the flower is much larger—it is a fine variety; *speciosa*, a strong plant of, was flowering, and, for the first time, we perceived its true character; it is a fine deep red, elegantly blotched and touched with pure white, and the contrast between the two colors is most striking. One called *ròsea*, so received from England, and which Mr. Buist has designated *China*, to distinguish it from the common *ròsea* or *Middlemist's*, is an exceedingly neat flower, full as double as the *myrtifolia*, but of a lighter color. *Fasicularis* of the French, and *Wiltóni* of the English, Mr. Buist informed us, were one and the same thing. To our judgment, a flower of the latter, open here, appeared identical with *fasicularis*, which we had a short time previous seen at Mr. Wilder's; it is a pretty variety. *Wiltóni*, of some English collections, appears to be another variety; large plants which have flowered both at Mr. Wilder's and in our garden, have shown no appearance of white in the flowers. *Palmèri álba* and *candidissima*, both in this collection, are said to be fine white ones. Mr. Buist's *camellias* look very strong, and in excellent health. In this house we also noticed two new *azaleas* in bloom; one was the *A. indica var. Gillinghåmi*, and the other *phoenicea elegans*; each have rosy purple flowers, very large, and in abundance, and are most valuable additions to the green-house or conservatory.

In the stove we found a variety of plants, and a good stock of the *Clíanthus puníceus*, *Benthámia fragífera*, *Russélia júncea*, and *Manéttia glàbra*; of *Beaumóntia grandiflora*, *Ixora bándùcha*, *Lantàna Sellòwii*, *Caladium bicolor*, and some other new things, there is also a good stock; of that elegant stove climber, *Ipomæa Horsfállæ*, Mr. Buist possesses a few plants. We here saw some of the pitcher plants, *Nepénthes distillatòria*, which Mr. Buist had raised from seed; they were bearing a few minute little pitchers, which were extremely curious. We hope the plants will be kept alive, and increased under Mr. Buist's care, and we shall expect to see them introduced to all hot-houses. Of *Dionæa muscípula* we observed a good stock; the plants are procured in abundance in their native localities at the south, and are intended for transportation to England, where they are extremely rare.

In the old range of houses the plants look vigorous and healthy. There has been a great number of new plants added during

the past two years; and it is impossible for us, from our very limited visit, to mention but few of the most rare and beautiful of these: *Mimulus cardinalis*, (see p. 181,) *Lechnaúltia formosa*, beautiful; *Fúchia* sp. var. *grandiflora*, raised by the Messrs. Young, of Epsom, and said to be splendid; *Pimelëa decussata*, charming; *Lophospérnum cæruleum*; *Gardoquia Hookeri*, exquisite; *Gloxinia álba*; *Tacsônia pinnatistípula*, very elegant; *Ceanòthus azureus*; *Clivia nóbilis*, &c. &c. Mr. Buist's stock of heaths is very much reduced; plants of *E. rubida* only were in bloom. Many new calceolarias have been added; some of them, we suspect, if true, very superb: this is a tribe of plants possessing great beauty, and deserving of general cultivation: no plants more enliven a green-house throughout the spring and summer than the different new varieties which have now become so numerous.

In geraniums, Mr. Buist has added most of the fine ones, such as Dennis's Perfection, &c.; the plants of these sorts are small, and not yet in bloom. In roses there has been an accession of many fine varieties; among others, the monthly cabbage, *Thëa Hymené*, multiflora Laure Davoust, &c. The former is stated to be very fine. Of the common tea roses and yellow Noisette, Mr. Buist has a large stock.

A great variety of seeds, collected by Mr. Nuttall in the vicinity of Columbia River, were put into the hands of Mr. Buist, by this botanist, to cultivate; several kinds were already up, and many new things are expected; among others is a shrubby mimulus, which, Mr. Nuttall states, surpasses all others; some of the Calochorti seeds, and a few of them are probably the same plants that were sent to England by Mr. Douglas. A cactus, believed to be the *C. nóbilis* L., was just beginning to grow; and several other plants, one of a singular habit, throwing out long stolones; their names cannot be ascertained until they bloom. Many of the seedling plants will bloom the coming summer, and among them some beautiful things are looked for.

Mr. Buist is now doing a very extensive business, principally with the south, where, with a mild climate, a great part of what are with us green-house plants flourish as well in the open air as the common hardy shrubs of our gardens. The great expense attending the erection of structures for plants, in the Middle and Eastern States, is a great obstacle to so rapid an increase of a floricultural taste as would otherwise take place. It is beyond the means of many persons, who have a great love for flowers and shrubs, to indulge in it to any extent, from the high price of labor, and the expense attending the construction of suitable green-houses, &c.; and it is therefore to hardy shrubs and plants that we should direct our attention. By a judicious selection of these, and the introduction of all that are sufficiently hardy for

our climate, the beauty of the garden may be enhanced in a two-fold degree to what it is at present; in particular, hardy herbageous plants are much neglected, and it would give us great pleasure to see them enriching the borders and parterres of gardens, now barren of beautiful flowers, or filled with such as are scarcely worth growing from their inferiority.

Mr. Buist has now engaged Mr. Scott, late of Knight's Exotic Nursery, King's Road, Chelsea, England, to take the charge of his establishment. The business concerns of his nursery have become so extensive, that he has, personally, very little time to devote to the propagation and cultivation of plants. Under the skill of Mr. Scott, the rarest and most difficult plants to propagate will be increased to supply all demands.

*Residence of J. B. Smith, Esq.*—In our former visit to Mr. Smith's garden, we unfortunately called when he was absent from home, and had not therefore the pleasure of seeing him. We hastily walked through the several houses, intending, if our time allowed, to call again; but we were deprived of this pleasure. A short time after, the whole collection was purchased by Mr. Knevels, of Newburgh, N. Y., a zealous amateur, who now possesses the finest collection in that State. Mr. Smith informed us that he sold every plant, expecting to visit France; but from some circumstances his tour was delayed, and subsequently he commenced making up the present collection. How well he has succeeded, and with what assiduity he must have labored, can readily be perceived from a mere glance at the plants. The collection is but very little inferior, in point of rare specimens, to his former one, but the plants are smaller. The camellias were then more numerous than now, but they did not embrace any better varieties. We have just noticed some seedlings which were raised by Mr. Smith. Among those which we this time observed in flower may be noticed *conspicua*, a very large deep red one; *imbricata*, a fine specimen, with three or four flowers, each handsomely striped; *excelsa* is a pretty semi-double white; many of the more common sorts were expanded. Mr. Smith has again commenced the raising of seedlings, and already has some forty or fifty plants of one year's growth. *Arbutus Andrachne* we saw in full bloom; it is a splendid object for the conservatory. Several fine lemon and orange trees fill up part of the green-house; these Mr. Smith purchased at different places in the city, which abounds in large specimens.

In one of the hot-houses, the largest of the two, there are already many fine plants; among others, the *Pandanus spiralis*, *Illicium floridanum*, *Hibbertia volubilis*, *Limonia pentaphylla*, *Bonapartea juncea*, &c.; a few fine amaryllises were just expanding; one, *A. psittacina hybrida*, was extremely magnificent. The smaller stove or hot-house we found crowded with plants. There



are two elegant specimens of *Chamærops humilis*, which Mr. Smith thinks are specifically different; two or three of *Astræa Wallichii*, a notice of the flowering of the largest of which, the past spring, will be found at p. 112; the dependent dried umbels were still adhering to nearly all the terminal shoots, and the plant, when in full flower, must have been splendid. One other species, *A. mollis*, is in this collection. Mr. Smith also possesses *Strelitzia juncea*, not yet of much size. We also noticed *Ixora crocata*, *Bunfelsia grandiflora*, *Caladium bicolor*, *Zamia integrifolia*, *Crinum amabile*, *Hibiscus liliiflorus*; these, and, in fact, the whole collection, are well grown, and are now in a most vigorous and thriving state. Indeed we know not where to point out a collection which is kept in better order. We have no hesitation in saying, that the present one will fully equal, if not surpass, the former in a few years.

Mr. Smith has lately taken the whole care of his plants personally, having been without a gardener for some time; the difficulty of procuring such as are able to manage so valuable a collection is very great; indeed it is almost impossible to find those who have a good knowledge of the propagation and cultivation of green-house and hot-house plants. So many gentlemen and amateurs have been deceived and disappointed in the employment of the numerous would-be-called gardeners, who are to be found in all the Atlantic States, that the skill of the truly scientific and professional man is often doubted. There are many with whom we are well acquainted, to whose care any collection of plants, however rare and choice, might be entrusted with safety; and there are also those to whom we should be unwilling to leave the very commonest plants. It is only for the professional man, to be distinguished from the mass of itinerant gardeners who travel the country, to make himself known by contributions to horticultural magazines, or to his employers by his superior knowledge of plants, not of the mere names alone, but of their properties and physiological character, their history, geography, &c., and by some knowledge of the *natural* as well as the artificial system of botany. Unless he does this, it will be difficult for him to obtain that confidence in his employer, if an intelligent man, that he otherwise would. We look forward to the time when the profession of the gardener will be in this country one of great importance, and when their services will be in continual demand; we are but yet in the very infancy of the art, and have many things to learn; and the young American gardener should, consequently, fit himself for the state of things that is to come.

We conclude our notice of Mr. Smith's garden, after this short digression, by requesting all amateurs who may visit Philadelphia to call and see it: we are confident Mr. Smith will be happy to show them his very choice collection.

*Nursery and flower establishment of Mr. A. Dryburgh.*—This place, formerly known as Messrs. Dryburgh & Sherwood's Nursery, is situated, we believe, in Arch-street, near Schuylkill 3d. It is now under the sole management of Mr. Dryburgh, Mr. Sherwood having retired from the concern, and established himself at Laurel Hill, about five miles from the city. The collection of plants is not very celebrated, but contains some fine specimens. We saw here some of the largest *Cereus speciosissimus* that we have ever observed; they are growing in large pots, and the shoots are kept in place by means of stakes inserted into the sides of each; they are in vigorous health, and must soon present a most gorgeous array of magnificent flowers. Mr. Dryburgh pointed out to us several plants of the *Clianthus puniceus*: this shrub is perfectly hardy at the south, and is destined to be one of the most valuable that has ever been introduced. The collection of camellias is not extensive, though there are some very good specimens of double whites. We here also saw a very large plant of *Bonapartea júncea*; a large *Zamia hórrida*; *Amaryllis Johnsoni*, with a fine umbel of flowers. The stock of roses is very large, and Mr. Dryburgh has many of the finer kinds budded into stocks of the Boursalt. We saw plants of the yellow tea and Noisette, which were much more vigorous than when growing on their own roots; and we have no hesitation in saying that all the more slender ones flourish better in this way. The vigor of the stock is imparted to the scion, and much stronger wood and larger flowers are the result of the union. Harrison's yellow Scotch, a very pretty rose, is exceedingly showy, budded in this manner; and the vigor of the plant is two-fold. [Noisette Lamarque, in the collection of Mr. Sweetser, has made shoots four feet long, and nearly half an inch through, while plants on their own roots have thrown up but slender suckers; this we have witnessed within a short time.] Mr. Dryburgh has a considerable number of the more common green-house plants.

*Mr. Sherwood's Establishment, Laurel Hill.*—Mr. Sherwood, as we have just stated, was formerly connected with Mr. Dryburgh in the nursery business; but after the establishment of the cemetery at Laurel Hill, he was selected to take charge of it. He has had erected a large green-house, nearly or quite one hundred feet long, which is divided into three compartments. The house having been just completed, we could not expect to find the plants in the same order that we should in an old establishment. The camellias, of which there is a good collection of the more common varieties, are in a vigorous state, but need some syringings, to wash the dust from the foliage; of rare kinds we did not notice many. We observed a very large number of seedling heaths which had just been potted off. There are con-

tained in the first compartment; the second is almost wholly filled with roses; and the third with geraniums and other plants. There are some very fine specimens of cactuses in this collection. We noticed a number of pots of pansies, some of which had one or two flowers expanded, that were very beautiful; these pretty little plants are not so highly appreciated as they deserve to be; it is, however, owing in a great degree to the plants, which have been raised from the English seed, having been but little better than common kinds. Were pains taken to select the seed after one or two good ones have been grown, then the chance of growing superior ones would be certain; like all florists' flowers, a great deal depends on their cultivation and management.

Unfortunately Mr. Sherwood was not at home, and, from our short visit, we did not notice all the plants. This place will eventually contain many choice and well grown specimens.

*Bartram's Botanic Garden.*—This fine place, established by the elder Bartram, one of the first naturalists the United States has produced, is situated on the western bank of the Schuylkill, a few miles distant from the city. It is about twelve acres in extent, and is filled with upwards of two thousand species of American forest trees and shrubs. Mr. Bartram was bred a farmer, but his enthusiastic love of botany drew him from this situation, and he established this nursery, and travelled all over the western and southern country, regardless of all dangers, collecting the seeds of trees, shrubs and plants of every description, which he transferred to his nursery: At a very advanced age, he made a tour through the southern country, collecting every thing that would ornament the park, the pleasure ground, or the flower garden. He corresponded with Linnæus, and other eminent botanists and physiologists in Europe, and often sent seeds and plants to the former. Immense quantities of forest tree seeds were sent out to England and the Continent, and hundreds of trees, which are now the ornament of many of the fine parks and pleasure grounds, were either raised from seeds, or have been grown from young plants, sent from Bartram's Botanic Garden. After his death it was carried on by the two sons, John and William, who conducted it in the same excellent manner that it had been done by their father. It is now owned by Col. Carr, who married the daughter of John Bartram, and it is still noted for its splendid specimens of American trees, which were planted by Bartram the elder, and have now attained to an unusual size: *Cupressus disticha* is one hundred and twelve feet high, and is ninety-one years old. A large business in American forest tree seeds is carried on with the seedsmen of Britain and the Continent, and great quantities are annually exported.

The exotic department, to which there are several detached houses devoted, is rich in old specimens of some plants, but,

in rare and choice ones, is inferior to some others. In the largest or main house we found a very good collection of camellias, embracing a great number of seedlings, most of which have not yet flowered, but the plants of which have obtained a large size. Mr. Carr has raised one which he designates *C. japonica* var. *Wrayi*, after his friend, Dr. Wray, an enthusiastic amateur and botanist, of Augusta, Ga. It was pronounced by a committee of the Pennsylvania Horticultural Society a very fine variety. We believe it is a large dark red, with a few touches of white. Among the other plants we saw, as usual, all the various kinds; one small house is nearly filled with roses for cutting for bouquets during the winter season. In the orangery attached to the large green-house are a great number of very old orange and lemon trees.

In a smaller house, kept up to the temperature of the stove, and partly used for propagating purposes, we noticed a great number of plants. We here saw the practice of grafting the shoots of the tree pæony upon the tubers of the common sort carried into operation, and we were informed that it answers perfectly, and is a safe mode of increasing this magnificent plant: the mode of performing the operation is given in our II. p. 377. Those we saw had been in some time, and the buds and shoots looked as fresh and full as on the old plants. This plant is not free of propagation, and it will be a long time before the price of good flowering ones will come within the means of the gardening community in general. This we regret: its great splendor and perfect hardiness render it one of the most desirable of hardy shrubs. [An amateur and great lover of flowers, who cultivates nearly all the tree and herbaceous pæonies, writes us, under a late date, that he is about trying to procure seeds from the common garden one and other varieties, such as the *fràgrans*, &c., by impregnation with the former, in the hope of procuring some superior sorts. We shall endeavor to learn the result of his zeal, and shall with pleasure communicate it to our readers.] But we hope, notwithstanding its slow increase, to see it as generally cultivated as the old double red. Here we also saw an immense number of plants of the *Dionæa muscipula*, taken from their native locality, for exportation. Numerous plants were in the course of propagation.

Our visit was rendered much less interesting by the absence of Mr. Carr from home, and we walked through the houses alone, taking a memorandum of what we thought worthy of note; but, no doubt, omitting many things which deserve mention for their beauty or singularity. The various structures for containing the plants have been erected some years, and do not present any exterior or interior display. A short time since Col. Carr lost one house, together with all the plants, by fire.

We stopped for a few minutes in the seed room, to notice the fine collection of cactuses which we found here; they are very well grown, and contain some new kinds, some time since received from Mexico, and which have not, we believe, yet produced flowers: some are of grotesque forms and singular appearance. We presume that this is the most complete collection in the country, numbering a greater quantity of species or varieties. More interest attaches to this old establishment in the summer season, when the numerous species of American trees, shrubs, vines, hardy evergreens, &c., collected from all parts of the Union, are in foliage and flower; and which are of such interest to the lover of our indigenous trees, as would well pay for a visit to this city. An English writer has observed that the large specimens are alone worth travelling five hundred miles to see.

It is with deep regret that we learn that one of the principal rail roads in the State of Pennsylvania, now constructing, will run to the city directly through the nursery of Col. Carr, and will cut up the grounds in such a manner as to entirely destroy their beauty; but what is a source of yet deeper regret, is the destruction which it will cause of some of the old and still beautiful specimens of trees which ornament the place; several of these, which have long served as a memento of the zealous labors of the elder Bartram and his sons, will fall by the woodman's axe. It is a melancholy scene to the American horticulturist to see the few beautiful private residences and nurseries of which our country can boast, one by one, purchased by individuals or companies, to be cut up into building lots, or otherwise destroyed, by rail roads running directly through them. Dr. Hosack's, at Hyde Park, N. Y., the best specimen of gardening in this country, was the first; Mr. Pratt's, Laurel Hill, but little inferior in its style, next; and now one of the oldest nurseries, founded by one of the best naturalists this country ever produced, is to follow, though not the same, a similar fate. We hope, however, that the time is approaching when the public taste will be brought to such a state as to appreciate and venerate the many beautiful country residences which already exist, and rather than destroy what few there are, endeavor to hold them up as specimens of individual wealth, accompanied with taste and liberality, a love of our indigenous forest trees and shrubs, and a desire to improve, by the aid of art, the appearance of the country in some localities not naturally picturesque, or give to the wild and almost uninhabited spots that quiet repose of character and highly cultivated appearance which harmonizes more consonantly with our feelings and ideas. In a country subject to the same wise laws as those by which ours is governed, we can never expect to see the same elegant places descend hereditarily through many generations, nor, if we could, should we wish it; but we do sincerely

hope that the same destroying power which has prevailed within a few years will be arrested by some change of taste, and that individuals may, at least during their lifetime, see the results of their early labors.

*Nursery of the Messrs. Landreth.*—This establishment is now owned and carried on by Mr. Thomas Landreth, the old firm of D. & C. Landreth having been dissolved. We have not seen it since the fall of 1831; but some remarks will be found in vol. I. p. 201, which we made from recollection of our visit at that time.

The collection of green and hot-house plants is not very extensive, it being confined in three middling sized structures, and does not afford the same interest to the amateur as either Mr. Smith's or Mr. Buist's. It however contains some fine specimens. Here is by far the largest and strongest plant of the true *Rhododéndron arbóreum* in the country: it is upwards of eight feet high, handsomely branched, and covered with healthy foliage, and, at this time, showing the seed pods of upwards of *twenty-five* umbels of flowers. What a superb display it must have presented! Some of the flowers were impregnated, and it is expected a number of seedlings will be raised from the seed. This plant must be very old; it was, when we saw it, six years ago, at least five feet high. We have never seen a plant since in any other nursery or private establishment, which we have visited, of any size; and what we have observed were small, unhealthy looking ones, with sunburnt foliage and slender shoots. We certainly think our cultivators do not understand its management: something there must be wrong, or it would flourish better. What peculiar management Mr. Landreth's has had we are not aware; but we hope to receive from him some account of this plant.

The exotic department, we expect, is not so rich, according to the present advantages of procuring plants, as it has been in years past; but the nursery business is kept up with the same vigor and correctness. The stock of camellias is not large, and does not number above forty or fifty varieties. *Caméllia japonica* var. *Landréthii* is now considerably esteemed, and the stock of plants somewhat reduced. There is a good stock of *Correa speciosa*, and we observed one large frame filled with seedling magnolias.

The earliness of the season prevented us from making here, or at any of the places we have noticed, any remarks upon the plants of the open garden. But we observed that the large Osage orange, (*Maclura aurantiaca*,) here, has not had the last year's shoots winter killed in the least; there is, we think, no doubt of its perfect hardiness even in the latitude of New York or Boston. As regards its utility as a hedge plant, there are various

opinions; but to test this, we are happy to inform our readers that Mr. Cushing, of Belmont Place, is about setting out, as soon as the ground can be prepared to receive them, one thousand good sized seedling plants. They will be planted out the distance of about a foot or fifteen inches from each other, in a single line; they are now about a foot high. Plants are readily raised from seeds, which may be procured in their native localities in the Arkansas Territory, and vegetate freely.

The seed establishment, formerly a branch of the Messrs. D. & C. Landreth's nursery, is now continued under the firm of D. Landreth & Co., in Chesnut-street, and is entirely separate from the nursery grounds now carried on by Mr. Thomas Landreth. Messrs. D. Landreth & Co. are, however, his agents for the sale of trees and shrubs.

The rapid advancement which horticulture has made within the past two years cannot be more apparent than by a comparison of the present business of the nurserymen with that two years since. New commercial gardens have sprung up in all parts of the country, and in scarcely one instance have any of the old establishments had their trade diminished, but, on the contrary, increased. The leading article in the present volume, upon the state of horticulture in this country, by our correspondent, Mr. A. J. Downing, gives an excellent retrospective and brief view of its progress up to the time that it was written; and to keep our readers informed of its future advancement, we propose to give, if possible, an article, in the commencement of the next, and each succeeding volume, containing a retrospective view of each year; of the principal new private and commercial gardens which have been established; of the most beautiful new flowers and fruits introduced, or raised in this country, that have become generally cultivated; of the progress landscape gardening has made; and, indeed, every thing relating to horticulture which we may consider as new to the amateur gardener or nurseryman. We here invite all our present correspondents to communicate to us any information upon these particular points. Spread over so wide an extent of country as are all the various nurseries, it would be almost impossible for us to make such an article by any means complete, unless they co-operate with us freely. Amateur gentlemen, residing at a distance in the western and southern parts of the Union, we would respectfully request to send us some notice of their annual improvements. If we are aided in our exertions, as no doubt we shall be, we hope our article will be one containing considerable information, and interesting to all our readers.

ART. II. *Notes on the Cultivation of Vineyards in the United States.* By A. J. DOWNING, Botanic Garden and Nurseries, Newburgh, New York.

YOUR readers may not generally be aware of the progress which the cultivation of the grape is making in various parts of the Union. Although not encouraged, like the silk culture, by legislative premiums or acts of the state government, yet individual enterprise is demonstrating that the United States will yet become as celebrated for its wines as its other agricultural products. It cannot be doubted that the culture of a plant that produces more than one hundred and fifty millions of dollars to France annually, and employs so large a proportion of her laboring class, will find a genial soil and climate in a country that extends from the 25th° to the 48th° of latitude. We are induced to believe, from observation, that the milder and more temperate portions of the Middle and Western States will become the field of the finest vineyards at no very distant period.

All the successful experiments which have been made among us in the vineyard culture of the grape, have been made with the *native varieties*. This should be well understood, as many persons have been induced to believe, from the failure of those who have attempted to introduce the wine grape of Europe into this country, that the soil and climate were unfavorable to the production of wine. Thousands have been expended upon the cultivation of the European varieties, but the results have been, in every instance, most unfortunate, while those few persons who have turned their attention to the indigenous varieties have realized their most sanguine expectations.

The late Major Adlum, of the District of Columbia, Mr. Herbemont, of South Carolina, and Mr. Longworth, of Ohio, have been the most successful cultivators of our native grapes, on a large scale, in the Union. Their wines have been pronounced, by connoisseurs, equal to some of the most celebrated foreign productions, and their success in the field culture of the grape has been such as to remove all doubts of the entire feasibility and profit of wine-making among us. Mr. Longworth, a gentleman of ample means in the neighborhood of Cincinnati, has probably made the most extensive experiments in the culture of American grapes, and, we are happy to say, with the most decided success. We have lately had the pleasure of receiving a communication from him on this subject, in which he states that he has produced wines of qualities so nearly resembling those of the finest Rhenish and Madeiras, that the best judges have been deceived by them, and have pronounced the domestic to be the foreign wines. Mr. Longworth states that



the average crop of grapes and quantity of wine per acre, in this country, will far exceed that of Europe, and believes that the only secret of making the finest wine lies in the fermentation. This opinion receives confirmation from the well known fact that in Europe there is often a difference of two hundred per cent. in the value of wines made from vineyards adjoining each other. The number of gallons to the acre in Europe is rarely so great as one thousand. The Scuppernon vines in the south have yielded, in one instance, (Capt. Burlingham's,) two thousand gallons, and Mr. Longworth informs us that he has obtained one thousand four hundred and seventy gallons to the acre from the Isabella. This product will be considered enormous, until we recollect the remarkably prolific nature of the American grapes as compared with the foreign varieties. The Schuylkill Muscadell is the wine grape of the Swiss in Vevay; but Mr. Longworth considers the Catawba decidedly the first of all our native grapes for wine. The wine made by him from this grape retains a delicate aroma, quite unique and peculiar; that made from the Schuylkill Muscadell, with a few years of age, strongly resembles Madeira, and is sold for that article in the coffee houses at Cincinnati.

The cultivation of the grape has been greatly retarded in this country by too rigid an adherence to the European rules and practices. As it is now ascertained that it is impossible to naturalize the European grape for vineyard culture among us, we should make such deviations in the management of the best American varieties as reason and experience may dictate. The first of these is giving the vines a greater extent of surface in training than is practised abroad, in consequence of their greater vigor of growth. Instead of being trained upright to single stakes, they should here be suffered to extend themselves several feet laterally, and a less severe method of pruning should be adopted. From the greater thriftiness and exuberance of growth in our vines, a stronger soil may and should also be chosen for their culture. The old decomposed soils of many of our mountain ridges in the Middle States, where now the native vines clamber in wild luxuriance from tree to tree, will, we have no doubt, become, in time, the site of many of the finest vineyards, whose products will equal in celebrity the famous wines of the Côte Rotie, Hermitage, &c. of France.\* Thus runs the old song in favor of the hills:

"Toujours le bon vin croit sur les montagnes  
Dans les rochers, et sur les cotaux;  
Celui qui croit dans les rases campagnes,  
Ne vaut rien, a cause des eaux."

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\* These fine wines are produced upon decomposed granite soil, strongly analogous to those of the valley in and near many of our granite hills.

But fertile plains, particularly where the formation is a calcareous or limestone one, must also be found highly favorable to the growth of the vine. For the native grape, the farther north their cultivation is attempted the more requisite it will be to procure a favorable and sunny exposition; and a system of pruning should of course be adopted which will afford a free circulation of the sun and air for the ripening of the fruit.

Aside from the vintage, and the fermentation and management of the vine, no species of cultivation can be more easily managed than that of the grape. Planted in straight lines, and trained laterally to poles, the plough kept in motion between the rows, and a semi-annual pruning, will be all the mysteries of cultivation. On the other hand, the revenue accruing from it will, we confidently believe, from data in our profession, and from the results placed before the public by the successful experimentors above stated, be as great or greater than from any other branch of agriculture.

A. J. D.

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ART. III. *On the Cultivation of the Tree Mignonette, and some Remarks on raising Roses from Seeds.* By L. BOLL, Florist, New York.

HAVING promised you, when you called at our establishment, on your late visit to this city, a short communication upon the cultivation of the mignonette, in what is called the tree mode, I send you the following remarks. If you consider them worthy an insertion in your Magazine, they are at your service.

I sow the seeds, at various seasons, as the plants are wanted to bloom; one or more pots, according to the number of plants required, are filled with a light compost, and the seeds scattered thinly upon the surface. The pots are placed in a favorable situation in the open air, (unless in severe weather,) where the seeds soon vegetate. When the young plants have made three or four leaves, I select all those which are strong and vigorous, discarding the others, and transplant them into small pots, one in each. After this operation is finished, I place the pots in a frame, or in a good situation in the green-house. When they begin to start, I allow but one leader to grow, taking off, carefully, all the lateral branches, until the main shoot arrives at some

height, when they are permitted to grow. When the pots are full of roots, which may be easily known by turning the plants out, they should be removed into the next size, and they are again shifted into a third size when they have filled the second. By pursuing this mode, I can raise plants from one to two feet high. It should be observed that the compost for the pots must be rich and light, and always kept in a moist state.

This is my mode of practice, followed for many years, and which I have invariably found to succeed.

*Raising Seedling Roses.*—I observe in your number for April, p. 136, an article, on raising roses from seed, by Mr. Russell. Is not your correspondent mistaken in saying it requires two years for the seeds to vegetate? I can assure you that I have planted them in the month of February, and, fifteen weeks thereafter, have had a plant from the same in bloom! This rose is now in our establishment under the name of the "Pretty American." It is the smallest of all roses. [Our correspondent had not probably read the notice of the Master Burke rose, at p. 129, when this communication was written.—*Cond.*] The plants do not grow more than six or seven inches high, and the flower is about the size of a five cent piece.

We have about one hundred and fifty seedling roses, all of which have flowered within the past two years. With particular care the seeds can all be made to vegetate in about four months. But particular care is necessary, and the peculiar precautions requisite I will give you in a future number of the Magazine. I would observe, in conclusion, that all the perpetuals, Bengal, Chinese, Tea, and Noisette roses, can be made to produce their flowers the first year.

I am, dear sir, yours, &c.,

L. BOLL.

*New York, April 24, 1837.*

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ART. IV. *Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some Account of those which it would be desirable to introduce into our Gardens.*

*Edwards's Botanical Register, or Ornamental Flower Garden and Shrubbery.* Each number containing eight figures of Plants and Shrubs. In monthly numbers; 4s. colored, 3s. plain. Ed-

ited by John Lindley, Ph. D., F. R. S., L. S., and G. S. Professor of Botany in the University of London.

*Curtis's Botanical Magazine*, or Flower Garden Displayed, containing eight plates. In monthly numbers; 3s. 6d. colored, 3s. plain. Edited by Sir W. J. Hooker, L.L. D., F. R. A., and L. S., Regius Professor of Botany in the University of Glasgow.

*Parson's Magazine of Botany*, and Register of Flowering Plants. Each number containing four colored plates. In monthly numbers; 2s. 6d. each.

*The Horticultural Journal*, *Florist's Register*, and *Royal Ladies' Magazine*. Dedicated to the Queen, Patroness, the Rt. Hon. the Earl of Errol, President, and the Vice Presidents of the Metropolitan Society of Florists and Amateurs. In monthly 8vo numbers, with a plate; 1s. each.

## DICOTYLEDONOUS, POLYPETALOUS, PLANTS.

### *Ranunculaceæ.*

#### DELPHINIUM

*montanum* De Cand. syn: *D. hirsutum* Roth. *D. elatum* AIL. Mountain Larkspur. A hardy perennial plant; growing from five to six feet high; with blue flowers; appearing in the autumn; propagated by seed and division of the roots; a native of the Alps. Bot Reg., 1836.

This is the well known bee larkspur of our gardens; and although it has been an inhabitant of some of them for many years, it does not seem to be near so extensively cultivated as from its beauty we should suppose it would. Dr. Lindley remarks, in figuring this species, that "there are in this country [England] many beautiful species of *Delphinium*, about which little is known, except to mere botanists. They have been little cultivated, and never figured, and to the great mass of the lovers of plants are as new as if they had never been introduced." He therefore proposes to bring them gradually into notice by occasionally publishing a figure of some of the species or varieties in the *Botanical Register*. "For," he continues, "what can be more graceful than the tall slender stems of many species of *Delphinium*, or more perfect than the form of their dissected leaves, which no insects dare touch, or more agreeable tints than the rich blue, whether deep or pale, of their singular flowers? what is there more easy of cultivation, and more perennially durable? And what species of well known hardy plants are more in need of figures to illustrate them?" Among the larkspurs, in their single state, this is probably the most beautiful; the plants grow very strong, to the height, frequently, of six or more feet, and the tall stems are terminated with fine spikes or racemes of blue flowers. It is a native of the Alps of Central Europe: De Candolle says it inhabits the valleys of mountains nearly as high up as the limits of the trees: it is also common on the mountains of Switzerland. No plant can be of easier cultivation, or more

perfectly hardy in our climate, than this species, and it should be in every flower border. Only four or five species and varieties of this extensive and showy genus of plants are grown in our gardens at present; but we hope soon to add many more of the fine ones which exist in English collections. Equally hardy and equally beautiful, they should be generally known and cultivated. (*Bot. Reg.*, March.)

### *Malvaceæ.*

**NUTTALLIA** (after Mr. Thomas Nuttall, a writer of the *Systematic Botany of North America*.)

*cordata* Lindl. Heart-leaved Nuttallia. A (?) perennial plant; growing a foot or more in height; with pale rosy flowers; appearing in autumn; propagated by seeds; a native of Texas (?). *Bot. Reg.*, 1938.

A very beautiful species of this genus, dedicated to Mr. Nuttall by Dr. Hooker. Mr. Drummond collected the seeds of this species, we believe, in Texas, and transmitted them to the Glasgow Botanic Garden, where plants were raised, and distributed to several gardens. The habit of the plant is neat; the flowers are of a pale purple or rose color, and are produced on long terminal peduncles. Unfortunately the specimens from which the drawing was taken were mislaid, and, consequently, no description of this species could be given. Whether it will prove hardy in our climate is doubtful. It merits, however, to be introduced. (*Bot. Reg.*, March.)

### *Cactaceæ.*

**PERESKIA**

*aculeata* De Cand. syn: *Cactus Pereskia* L. West Indian Gooseberry. A green-house plant; growing two or more feet high; with white flowers; appearing in October; propagated by cuttings; a native of the West Indies. *Bot. Reg.*, 1938.

This is a plant which is in many of our collections, but which has seldom or ever flowered. Unlike the other cactaceous plants, it has fully formed leaves, of a large size, and the plant forms quite a bush when properly and successfully cultivated. In England it is used as a stock on which to graft other kinds. The flowers, though not possessing the brilliancy and splendor of the well known and more popular plants of this order, are, however, not unhandsome. "They form fine clusters of white and green cups, and the fruit is like a mellow gooseberry." Dr. Lindley remarks, that "the woody matter of the stem is one of the best illustrations that physiologists are acquainted with of the plan on which exogenous trunks are formed. This is easily seen by taking an old stem of *Pereskia aculeata*, and macerating it for a few weeks, when the whole of the horizontal cellular system decays, leaving behind it the longitudinal system, in the form of a woody skeleton." The drawing was communicated by W. M. Christy, Esq., of the Clapham Road, in October, 1833. (*Bot. Reg.*, Feb.)

### *Rosaceæ.*

**CRATÆGUS**

*saeva* var. *lobata* L. syn: *C. turbinata* Persk. *Mespilus Michauxii* Pers. Rough-barked Thorn; single fruited variety. A hardy small tree; a native of North America. *Bot. Reg.*, 1932.

This is supposed by Dr. Lindley to be a mere variety of *C. flava*, while Loudon, in his *Arboretum Britannicum*, and De Candolle, consider it as the true species. "It seems to be the same as the *C. turbinata* of Pursh and Elliott; but the specific phrase of these authors is insufficient to settle the question. Undoubtedly *C. flava* of Elliott was a misnomer; nor can the summer haw of the same writer, with oval, well flavored, fruit, from sandy soil on the sea islands of Carolina, be referred to the true *C. flava*, as he supposes. It forms a small tree, with a rough bark similar to an elm, and with a compact spreading head. In some parts it is spiny, in others wholly unarmed. It differs from *C. flava* in nothing except its fruit, which appears solitary instead of in clusters, and in its more sharply cut leaves. (*Bot. Reg.*, Feb.)

*Oxyacantha* var. *Oliveriana* Lindl. syn: *C. Oliveriana* Boec. *C. Oxyacantha*, No. 10. *Loud. Arb. Brit.* Hairy-leaved black fruited Hawthorn. A hardy (?) small tree, supposed to be a native of Asia Minor. *Bot. Reg.*, 1933.

A much showier and more desirable variety than the last. The foliage is thick and handsome, and the branches are terminated with very dense cymes of black haws or berries, which give the tree a fine appearance. It has been supposed a species; but it differs very little from the common hawthorn, except its oval black haws and downy leaves. It is stated to be a native of Asia Minor, but Dr. Lindley has never seen wild specimens. Mr. Loudon, in his arrangement of this tribe, has assigned it as a variety of the *Oxyacantha*, No. 10. Probably perfectly hardy in our climate. (*Bot. Reg.*, Feb.)

*flava* De Cand. Rough-barked Thorn. A hardy small tree; with white sweet flowers. *Bot. Reg.*, 1939.

This species, figured subsequently to the *C. flava* var. *lobata*, is scarcely distinguishable from the latter variety. Both the *C. flava* and its variety are two which are the least worth cultivating for their beauty. Their mode of growth is stiff and inelegant, their foliage not abundant nor deep colored, and the fruit undistinguishable, at a short distance from the leaves it grows among, it being of a similar color. It is a native of the Middle and Southern States. (*Bot. Reg.*, March.)

### *Legumindceæ.*

#### DAVIESIA

*ulicina* Don Furze-like *Daviesia*. A green-house evergreen shrub; growing from two to three feet high; with yellow and orange flowers; appearing in April and May; propagated by cuttings; grown in loam and peat; a native of New South Wales. *Pax. Mag. Bot.*

A charming plant from New South Wales, which has been a long time introduced into Britain, but is not yet, that we are aware, in our gardens. The foliage is small, linear, ending in a sharp point; the flowers are yellow, pencilled with a few deeper stripes; they are axillary, solitary, on short peduncles, and produced in great numbers towards the extremities of the branches.

Mr. Paxton states, that although a hardy green-house plant, it requires that "nicety in its management, without which it does not grow or flower freely." It is a very beautiful plant, and highly desirable. (*Pax. Mag. Bot.*, March.)

*Euphorbiaceæ.*

**EUPHORBIA**

*fulgens Karst.* Fulgent Euphorbia. A stove shrub; growing three or four feet high; with brilliant scarlet flowers; appearing in March and April; propagated by cuttings; cultivated in sandy heath mould and loam; a native of Mexico. *Pax. Mag. Bot.*

See our II. p. 416, where a description of this species is given, copied from a communication in the *Gardener's Magazine*, by Mr. F. Rauch, during a tour in Germany; but we notice it again, as it has not been previously figured in any of the botanical or floricultural publications in Britain. It flowered for the first time in England last November, in the nursery of Messrs. Lumcombe, Pince & Co., of Exeter, who furnished the specimen from which the drawing was taken. Its beauty is not in the bractes, as in the *Poinsettia pulcherrima Gra.*, and many species of *Euphorbia*, but in the flowers, which are produced in axillary clusters upon all the terminal shoots, and which are of a most vivid scarlet color. The terminal leaves are of a different color from the lower ones, being "shaded with a pink or bluish color, or mottled with a faint blue upon a purplish ground." Mr. Paxton remarks, that to convey an idea of its beauty it is only necessary to add "that, in general effect, it greatly surpasses the well known *E. splendens*, even when in its highest perfection." It thrives in a high temperature, and is propagated with facility from cuttings. (*Pax. Mag. Bot.*, March.)

*Balsaminidææ.*

**TROPEOLUM**

*tricolorum Swt.* Three-colored *Tropeolum*. A pretty climbing plant; with scarlet and purple flowers; appearing in the spring and summer; propagated by the division of the root and by seeds; a native of Valparaiso. *Bot. Reg.*, 1835.

Somewhat in general appearance like the *T. brachyceras*, noticed at p. 175. The stems are very slender, the leaves peltate, five or six parted, and correspond in size to the tiny branches, as well as the flowers. When first introduced, and for some time after its arrival, it was with great difficulty made to flourish, and but faintly showed the great beauty "that every one knows to be its attribute; but the skill of English gardeners has so completely overcome the difficulties of its growth and management, that nothing is now more common than to see large pieces of trellage covered with hundreds of its gay, scarlet, and purple flowers." How much do we wish that it might be cultivated as easily and as generally in our gardens! The English amateurs and gardeners, when it is grown in pots, display its graceful habit and lovely flowers, by training it to wires, made into some fanciful shape, and fixed firmly in the pots. Would it not be worth while for some of our wealthy amateurs, those who value flowers

for their beauty alone, and not their intrinsic worth, to introduce all the tropæolums not yet in our gardens, and to give some attention to their growth? *T. peregrinum*, we believe, is in but one or two collections. A plant of *T. pentaphyllum*, (*Chymocârpus Don pentaphyllum*), of which some information will be found in our *I.* p. 345, was growing in the garden of the Messrs. Sumner, in 1835, but we suspect it is now lost. Both this and the *T. brachyceras* and *tricolorum* we should be pleased to see in every amateur collection. It is a native of bushy places, on the hills near Valparaiso. (*Bot. Reg.*, Feb.)

*T. majus* var. *atrosanguinum* is now blooming in several gardens; it is very pretty for pot culture, and, trained to a wire trellis, presents a handsome appearance, with its numerous blood-colored flowers.

### *Nepenthdceæ.*

#### **NEPENTHES**

*distillatoria* Pitcher Plant. A shrubby stove plant; growing twenty feet high; flowers apetalous; appearing all the year; propagated by offsets; grown in peat and moss; a native of Egypt. *Pax. Mag. Bot.*

This most remarkable plant, the peculiar structure of whose leaves has so long attracted the notice of learned physiologists and botanists, and whose cultivation has puzzled the efforts of scientific gardeners, in their endeavors to grow it successfully, is figured by Mr. Paxton from a specimen which was produced in the collection at Chatsworth, under his care, where a single plant had upon it the past winter, at one time, upwards of fifty full grown pitchers. It is to these singular appendages to the leaves that the plant owes its value to the florist, as well as botanist, and not to the flowers, which are produced in a dense spike, apetalous, (without any petals,) disagreeable in their odor, and altogether destitute of any elegance.

The singular formation of the leaves of *Sarracenia purpurea*, a plant indigenous to our meadows, has probably often been noticed by most of our readers; but their structure, though unaccounted for, is in no way to be compared to the much stranger formation of the pitchers of the *Nepenthes distillatoria*; these are produced on the extremities of the leaves, which are entire, and nearly two feet in length; the mid-rib is lengthened into a tortuous pendulous tendril, bearing these on their extremities, which are erect, of a dingy color, and surmounted by a lid, remaining closed when small, but opening at about a right angle when they are grown to their full size; Mr. Paxton measured some of these, and found their dimensions to be as follows: "length of the fullest grown pitchers, from the base to the rim of the mouth, six to nine inches; circumference at the broadest part, five inches." The pitchers, both opened and unopened, invariably contain a larger or less quantity of pure sweet water, and in the opened ones are often found insects: from this cir-



cumstance it has been supposed that the office of this fluid was to decoy insects into them. This, however, is but the conjecture of botanists; the real design of their singular structure can be no other than to display the endless diversity and power of the Creator.

In cultivation, it requires a high temperature for the roots as well as the branches. It is to the circumstance of the pot containing the plant, which has produced so many flowers at Chatsworth, standing directly on the top of the entrance of one of the main flues into the stove, that Mr. Paxton attributes its great vigor and profuse flowering; it has attained the height of more than twenty feet; it prefers a partially shaded place, and should not be exposed to the rays of the hot sun. It was first introduced in 1789, but was afterwards lost; subsequently, however, both Mr. Cooper, of Wentworth, and the Messrs. Shepherds, of Liverpool, raised plants from seeds received from the Citar Mountains, in Bengal. (*Pax. Mag. Bot.*, Feb.)

Mr. Buist has one or two young plants of the *Nepenthes*, which he lately raised from seeds; we saw them at our late visit, but they had then only attained the height of two or three inches, yet the minute pitchers were well developed. We hope it will soon find its way into our stove collections; it is, undoubtedly, deserving of general cultivation.

### *Carophyllidææ.*

*Lychnis Bungeana*.—This plant, which is noticed in our II. p. 341, is also figured in *Paxton's Magazine* for February. We there learn, in addition to what we have already given, that "it is easy of cultivation, preferring a light, fresh, loamy soil; some specimens grown in pots attained the height of from three to four feet, and kept in flower, in a cool green-house, for nearly two months. As late as July, a plant was turned out into a south border, which produced upwards of forty flowers in September. The same correspondent writes thus: "When planted out in May there is no doubt of its proving one of the most showy half hardy plants lately introduced."

## DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

### *Asteridææ.*

*MO'ENA* Lindl. (*Morna*, one of the heroines of the northern romances, was a beautiful lady, confined in a golden hall, guarded by a thousand lancers, whose sole office was to do her bidding day and night. Her court could only be held where the sunbeams and the summer breezes had the freest access. During her residence on earth, she was worshipped as a divinity, and when she disappeared, her knights and her lancers vanished with her. She is described as having been a person of the most kind and gentle disposition, but of a melancholy and somewhat imperious temperament. Her figure was noble and commanding, her voice melodious, and her smile so resistless that the fiercest animals were tamed by merely looking at her. After her, various heroines of northern romance have been named Morna or Mornl. In the present instance, the ingenious reader will have no difficulty in tracing a resemblance between this mystical personage and the plant before him.)

*nitida* Lindl. The beautiful Morna. A beautiful perennial (?) frame (?) plant; growing two feet

high; with yellow flowers; appearing in August and September; propagated by seeds; a native of the Swan River. *Bot. Reg.*, t. 1941.

"A lovely plant, with its strong heads of the most rich and transparent yellow, having quite a metallic brilliancy when illuminated by the sun. It may be said, indeed, that *Elichrysum bracteatum* and *bicolor* are more showy; but they want altogether the softness and delicacy of *Morna*, while the latter is destitute of none of their richness and brilliancy." It flowered, for the first time, in England in 1836, and was exhibited at one of the London Horticultural Society's exhibitions by Robert Mangles, Esq., who obtained a Knightian medal. It is certainly an elegant plant; the flower, though somewhat resembling our well known golden eternal flower, is, however, far more delicate, of greater lustre, and, in habit, as graceful and lovely as its generic name implies. It is a rich acquisition. (*Bot. Reg.*, March.)

### *Gesneriaceæ.*

#### GESNERA

Sellowi Dr. Sellow's *Gesnera*. An herbaceous stove plant; growing a foot or more in height; flowers bright scarlet; propagated by cuttings; cultivated in sandy peat and loam; a native of Brazil. *Paz. Mag. Bot.*, Vol. III.

A most brilliant plant, with dense terminal racemes of very bright scarlet flowers; the corolla is tubular, and nearly three inches long. The leaves opposite and nearly sessile. It is a native of Brazil, and was first sent to the Botanic Garden at Berlin, by the botanist in honor of whom the specific name was given. The root is bulbous, and, when in a dormant state, watering must be withheld; but if a little care is given, it is easily grown. It is allied to the *G. fauciàlis*, noticed in II. p. 25. (*Paz. Mag. Bot.*, March.)

### *Scrophularidaceæ.*

*VERONICA* (an old but not classical Latin name, whose derivation has occupied and perplexed etymologists as much as any upon record.—Supposed by some to be an alteration of *Belenica*, by others to be derived from the Greek, and by a third to be of a mule kind between the Greek and Latin.—*Smith.*)

*perfoliata* *Dier.* Perfoliate *Veronica*. A frame perennial; growing a foot high; with blue flowers; appearing in July; propagated by division of the roots; a native of Port Jackson. *Bot. Reg.*, 1930.

Introduced some years since to Britain, but is seldom cultivated; the racemes or spikes of flowers are of a pale blue, and graceful; and probably the reason why it has not been grown is its tenderness, being unable to stand the severity of the winter, in England, unprotected.

Dr. Lindley states that *V. diosmæfolia*, *salicifolia* and *cattaractæ*, all natives of either New Holland, Van Dieman's Land, or New Zealand, and not yet in Europe, "yield in beauty to few plants of the same countries."

*Veronicas* are a pretty tribe, and several species, as *V. exaltatum*, *neglecta*, *élegans*, *spicata*, *pumila*, &c., we have in our possession; they are all perfectly hardy, and are among the prettiest perennial plants. (*Bot. Reg.*, Feb.)

*Solanaceæ.*

*PETUNIA* Lindl.

*intermedia* Graham syn: *Nieremburgia linearis* Graham *Salpiglossis linearis* Hooker Intermediate *Petunia*. A half hardy green-house plant; growing two feet or more high; with violet and purple flowers; appearing all summer; propagated by cuttings and seeds; a native of Buenos Ayres. *Bot. Reg.*, 1931.

Like the *P. phœnicea*, extremely showy and delicate, but in a much less degree; the leaves are linear and small, and the plant is not so well adapted to out-door culture in the summer as the others. It was first published as a *Nieremburgia*, by Dr. Graham, in the *Ed. New Phil. Journal*, in 1832, and afterwards by the same name in Sweet's *Brit. Flower Garden*, 237, and by Dr. Hooker as *Salpiglossis*, in the *Bot. Magazine*, 3256. But to neither of these genera, Dr. Lindley thinks, can it be united, certainly not to the latter, from its pentandrous corolla. (*Bot. Reg.*, Feb.)

*P. phœnicea*, in the stove at Mr. Sweetser's, trained to a trellis, has presented one mass of bloom from December to the present moment, (May 20th.) It is one of the showiest plants we possess.

*Verbendææ.*

*VERBENA*

*Tweedia* Niven Mr. Tweedie's scarlet *Vervain*. A perennial green-house (?) plant; growing about two feet high; with rosy crimson flowers; appearing in the autumn; propagated by layers or cuttings; cultivated in a rich sandy loam. *Pax. Mag. Bot.*

Registered at p. 139, but without much information respecting its habit, &c. It is said to surpass the *V. chamædrifolia* "both in beauty of flowers and elegance of growth, growing more erect, and being covered with a dense mass of conical shaped rosy crimson flowers." From the figure, this does not appear an exaggeration: the corymbs, or cones of flowers, show to much more advantage than the flattish ones of the *chamædrifolia*; its erect growth will give it an additional value. The seeds were sent by Mr. Tweedie to the Dublin Botanic Garden, who found the plants growing plentifully in boggy places at Laguna de la Molina, in the Banda Oriental. It is freely propagated by layers or cuttings, and, we presume, will ripen seeds, and soon become as generally grown and as great a favorite as the *V. chamædrifolia*. Messrs. Cunningham, at Liverpool, have the stock to dispose of. (*Pax. Mag. Bot.*, Feb.)

*Hydrophyllææ.*

*NEMO'PHILA*

*atomaria* Fischer Speckled *Nemophila*. A hardy annual; growing six inches high; with white flowers; appearing during the summer; supposed to be a native of California. *Bot. Reg.*, 1940.

Inferior in every respect to *N. insignis*, and hardly worth growing. The flowers are quite small, and destitute of the brilliant blue in the corollas of the former. The seeds were received from Dr. Fischer, of the Imperial Garden at St. Petersburg; but there can be but little doubt it is a native of California. (*Bot. Reg.*, March.)

## MONOCOTYLEDONOUS PLANTS.

## PHYCELLA

*brevituba* *Herb* Short-tubed Phycella. A green-house bulb; growing a foot high; with scarlet flowers; appearing in spring; increased by offsets; cultivated in sandy loam. *Bot. Reg.*, 1843.

A very beautiful bulb, with small scarlet flowers, nearly related to *P. ignea*, with which species Dr. Lindley thinks it may be questioned whether it is specifically distinct. Mr. Herbert has described it in his forthcoming work on the *Amaryllidaceæ*, where he has given the following remarks upon the habits and treatment of the genus:—"The phycellas have been found difficult to cultivate, because they are often set in peat, though they grow naturally in a sandy or strong soil, on a dry rocky substratum, and proper rest has not been allowed them. They should be planted in a light soil, well drained, and be left dry from the moment their leaves show a disposition to wither, till the bulbs, on examination, show a disposition to put out fresh fibres at their base. The old fibres in this genus seem always to perish before the plant vegetates again; it cannot therefore be injurious, and may be advantageous, to take the bulbs out of the ground when the leaves perish, and set them again when they are disposed to move. They will be preserved best when at rest in dry sand. I consider that phycellas should begin to grow in February, and go to rest in August. If the leaf endures later than August, they should have six months' rest before they are watered again." Their habit is to flower after the leaves have acquired their growth, before they go to rest. The drawing was taken from a specimen which flowered at Knight's Exotic Nursery. (*Bot. Reg.*, March.)

## Orchidaceæ.

*BIFRENARIA Lindl.* (so named in allusion to the double strap or frenum that connects the pollen masses with their gland.)

*aurantiaca Lindl.* Orange-colored Bifrenaria. A stove epiphyte; growing six or eight inches high; with orange colored flowers; a native of Damarara. *Bot. Reg.*, 1875.

Pretty, but not so showy as many others: the flowers are small, orange colored, mottled with brown spots. It flowered in the Duke of Devonshire's garden, at Chiswick. (*Bot. Reg.*, July.)

## EPIDENDRUM

*bifidum Aubl.* Hare-lipped Epidendrum. An epiphyte; growing three feet high; with white and purple flowers; appearing in July; a native of the West Indies. *Bot. Reg.*, 1879.

A beautiful species, throwing up a branched stem to the height of three feet, and terminated with many elegant flowers, the lip veined with bright purple. Found upon the branches of trees in the West Indies. (*Bot. Reg.*, July.)

*Skinneri Bateman MSS.* Mr. Skinner's Epidendrum. An epiphyte; growing from one to two feet high; with pale purple flowers; appearing in January. A native of Guatemala. *Bot. Reg.*, 1881.

"Among the most free-flowering of its tribe, every one of

its shoots, both great and small, having been invariably succeeded by a spike of flowers." The stem is slender and erect, and terminated by a spike of from twenty to thirty pale purple flowers. Its disposition to produce them, freely, renders it a valuable plant. It is a native of Guatemala, and was introduced in 1835, and flowered in January, 1836. A species which we hope will soon be found in our gardens. (*Bot. Reg.*, Aug.)

*Emulum* Lindl. Emulous Epidendrum. A stove epiphyte; growing a few inches high; with white flowers; appearing in February; a native of Para. *Bot. Reg.*, 1898.

"Closely allied to the variable *E. fragrans*, from which it is distinguished by its pseudo bulbs being oval, and not tapered to each end." Not handsome, but of a delicate character, and a tender species. (*Bot. Reg.*, Oct.)

#### ONCIDIUM

*Lanceanum* Lindl. Mr. Lance's Oncidium. A stove epiphyte; growing about a foot high; with yellow, chocolate and violet flowers; appearing in June. A native of Surinam. *Bot. Reg.*, 1887.

One of the most splendid of the tribe. We cannot better give a description of it than by copying the following from the *Horticultural Transactions*, written by Dr. Lindley. "The flowers are disposed in a short-branched rigid panicle, elevated on a stalk not quite as long as the longest leaves; it is about six or nine inches long, and densely covered with flowers, which sometimes assume a corymbose, sometimes a racemose arrangement. The flowers, when expanded, measure an inch and three quarters, from the tip of their back sepal to the point of their lip: they emit a delicious fragrance resembling that of the garden pink. The sepals are oblong, concave, obtuse, a little waved, and greenish-yellow at the edge, bright yellow in the middle, and regularly marked with broad blotches of crimson, which run together near the base. The two petals are similar to the sepals. The lip is bright violet, darkest at the lower half; at the base it is prolonged on each side into a triangular tooth, and in the middle of the base there are three nearly equal tubercles, which, towards the column, terminate a ridge that gradually lowers, and then disappears at the expanded portion of the lip; above the base it is narrow, and then extends again into a broad, thin, light purple, somewhat truncated and toothed extremity. The column has an oblique, rounded, ear-like appendage on each side, and is capped by a rich crimson anther." The leaves are, on a well cultivated plant, eighteen inches long, and the flowers on one spike number upwards of thirty.

It was introduced by Mr. Lance, from Surinam, where he found it growing on the trunks of the tamarind, sapodilla, and calabash trees, generally preferring them to any others. Upon his return to England he brought several plants, which he presented to various collections, including that of the Horticultural Society. It is not difficult to manage, and is grown in the So-

ciety's garden, in a house facing the north: the plant thrives in a mixture of sandy peat, potsherds and decayed wood. Dr. Lindley remarks that such an "acceptable addition to the hot-houses [of England] has rarely been made." (*Bot. Reg.*, Aug.)

*tridifolium* Lindl. Pigmy *Oncidium*. A stove epiphyte: growing two or three inches high; with yellow flowers; a native of South America. *Bot. Reg.* 1911.

A curious little species, common in many of the hotter parts of America. Descourtltz states that it grows exclusively on the branches of orange and lemon trees. Its small size will render it only desirable to make up a collection. (*Bot. Reg.*, Nov.)

*crispum* Lodd. Curled-flowered *Oncidium*. A stove epiphyte; growing two feet high; with chestnut-colored flowers: appearing in May; a native of Brazil. *Bot. Reg.*, 1930.

Another splendid species, in its native habitats often growing with fifty or sixty flowers on a stalk. It has not, however, ever produced this number in a cultivated state; but its deep chestnut flowers, of a large size, even as the plant flourishes in the English gardens, give it a distinct claim upon the care of the cultivator. Dr. Lindley enumerates twelve other species with which he is acquainted, which have not yet been published. (*Bot. Reg.*, Jan.)

*lunatum* Lindl. Crescent-tipped *Oncidium*. A stove epiphyte; growing six inches high; with yellow and orange flowers; appearing in June; a native of Demarara. *Bot. Reg.*, 1929.

This is a pretty species, somewhat related to *O. Harrisonianum*. It throws up a slender, erect spike, six or eight inches high, upon which appear about fifteen flowers, of a bright yellow, mottled with orange. Introduced by the Messrs. Lodiges. (*Bot. Reg.*, Feb.)

*CIRRHÆA*

*tristis* Lindl. Sad-colored *Cirrheæ*. A stove epiphyte; growing a foot high; with purplish flowers; appearing in June; a native of Mexico. *Bot. Reg.*, 1899.

Valuable from its delicious fragrance, as well as its singular formed lip and pendulous flowing habit. The flowers appear in dense spikes. (*Bot. Reg.*, Sept.)

*EPIMEDIUM* (an old name, supposed to be derived from *Medis*, where the plant was reputed to grow.)

*macranthum* Morren & Decadens Large-flowered *Epimedium*. A hardy epiphyte; growing a foot high; with pale violet flowers; appearing in April; a native of Japan. *Bot. Reg.*, 1906.

"A very sweet scented species." The plant is furnished with trinerved leaves, and the flowers appear in racemes. It is one out of one hundred and sixty species of Japanese plants brought to Europe by Dr. von Siebold, and first flowered in the conservatory at Ghent. If it will prove hardy in our climate it will be a valuable addition. (*Bot. Reg.*, Nov.)

*ASPASIA* (Literally *I embrace*, in allusion to the manner in which the column is embraced by the labellum.)

*variegata* Lindl. Variegated *Aspasia*. A stove epiphyte; growing three or four inches high; with variegated flowers; appearing in February; a native of South America. *Bot. Reg.*, 1907.

"Flowers deliciously sweet in the morning." The pseudo

bulbs throw up a short spike, which is terminated with two or three elegant variegated flowers. It is easy of cultivation, and, Dr. Lindley remarks, should be in every collection. There are only two published species of this genus. (*Bot. Reg.*, Nov.)

**MYANTHUS**

*deltoides* Lindl. Triangular-tipped Flywort. A stove epiphyte; growing about a foot high; flowers green and purple; appearing in October; a native of Demarara. *Bot. Reg.*, 1896.

This is a fourth species of this curious genus. The flowers are drooping, upon a terminal spike, and exceedingly handsome: the lip is of a rich purple color, with a dash of green in the centre. Dr. Lindley, in his *Genera and Species of Orchideous Plants*, published in 1833, attempted to remove one species, the *M. cristatus*, into the genus *Catasetum*; but from the imperfect knowledge he then possessed, he was mistaken: the genus *Myanthus* has now been so modified as to include that species. Found in Demarara, and sent to England, where it flowered in the collection of Richard Harrison, Esq., of Aighburgh, in October, 1835. (*Bot. Reg.*, October.)

**SCAPHYGLOTTIS** Poppig. et Endlicher (from a boat and a tongue, in allusion to the usual form of the labellum.)

*violacea* Lindl. Violet Boatlip. A stove epiphyte; growing two or three inches high; with rose colored flowers; a native of Demarara. *Bot. Reg.*, 1901.

Of botanical interest only, the flowers being small and inconspicuous. Imported by the Messrs. Loddiges. (*Bot. Reg.*, Oct.)

**IONOPSIS** Kunth. (Literally violet-faced: why so named not known.)

*tenera* Lindl. Delicate Ionopsis. A tender stove epiphyte; with white and violet flowers; appearing in May; a native of Havana. *Bot. Reg.*, 1904.

A slender delicate plant of but little beauty, and very difficult to cultivate. The genus is but little known, as the plants are so tender that they cannot be preserved on shipboard. It flowered in the collection of Sir Charles Lemon. (*Bot. Reg.*, Nov.)

**BRASSAVOLA**

*cordata* Lindl. Heart-tipped Brassavola. A stove epiphyte; growing six inches high; with green and white flowers; appearing in January; a native of Brazil. *Bot. Reg.*, 1914.

A species not possessing any great beauty. It is a native of Brazil, and was introduced by the Messrs. Loddiges. Dr. Lindley remarks that "there will be no certainty in the cultivation of epiphytal Orchidaceæ till we become more precisely acquainted with the habits of the different species than we now are. At present it is usual to consider them all natives of damp shady woods. It is, however, quite certain that such is only the habit of some of them. The whole genus *Brassavola*, for example, grows upon stones and rocks, *never* upon trees, in open forest glades, fully exposed to the sun." These same remarks will apply to many other orders, in which many of the different species suffer more from being planted in situations not natural to them in their native habitats, than all other causes together.

Too frequently plants which require a dry and sandy soil are planted in one continually saturated with water; and again, those which require a moist situation are planted in a dry one; and so in regard to light and shade. We might enumerate many generally cultivated plants which are mistreated in this manner; but we pass them by, advising the amateur or gardener to learn, if possible, the habit of every species before planting them out. (*Bot. Reg.*, Dec.)

**PRESCOTTIA** Lindl. (named in compliment to John Prescott, Esq., of St. Petersburg, a learned and indefatigable botanist.)

*colours Lindl.* Purplish Prescottia. An herbaceous stove plant; growing a foot high; with greenish flowers; appearing in January; cultivated in sandy peat; a native of Brazil. *Bot. Reg.*, 1916.

An herbaceous plant, with solitary, ovate, oblong, acuminate leaves, and dense cylindrical spikes of greenish-white erect flowers. It grows readily in sandy peat, flowering in its season, and dying down for the remainder of the year. Introduced by the Messrs. Loddiges. (*Bot. Reg.*, Dec.)

**CATTLEYA**

*intermedia var. pallida Lindl.* syn: *C. intermedia Graham* in *Bot. Mag.* Pale-flowered intermediate Cattleya. A stove epiphyte; growing six inches high; with white and crimson flowers; appearing in June; a native of Brazil. *Bot. Reg.*, 1919.

Exceedingly pretty, as indeed is the original species of this and the others of the genus. The plant throws up a slender stem, on which appear two pale pink or blush flowers, the lip elegantly marked with crimson. It flowered in the collection of the London Horticultural Society. Dr. Lindley describes five species which have not yet been figured, and part of which have not been introduced; *C. bicolor* and *coccinea*, he states, are not at all inferior to the *C. labiata* and *C. Loddigesii*. It grows equally well in its native country, "on the sea-beaten rock and the moss-covered tree, in the heart of the forest." (*Bot. Reg.*, Dec.)

**TRIGONIDIUM** Lindl. (Named in allusion to the triangular form of several parts; the sepals form a three-cornered cup; the gland on which the pollen masses rest is an obtuse-angled triangle, and the stigma is a triangular excavation.)

*obtusum Lindl.* Blunt-petaled Trigonidium. A stove epiphyte; growing six inches high; with white and orange colored flowers; appearing in August; a native of Demarara. *Bot. Reg.*, 1923.

A species of a free flowering habit, and easy of cultivation, but not freely increased. The flowers are solitary, upon erect stems, with three petals disposed in a triangular form. These stems spring from a rhizoma connecting two pseudo bulbs. Found in Demarara, by Mr. Colley, in 1834. (*Bot. Reg.*, Jan.)

**BURLINGTONIA** Lindl. (Dedicated to the Countess of Burlington, an amiable and accomplished lady.)

*candida Lindl.* Snow-white Burlingtonia. A stove epiphyte; growing six inches high; with white flowers; appearing in April; a native of Demerara. *Bot. Reg.*, 1927.

"The vegetable kingdom comprehends nothing more perfectly lovely than the delicate flowers of this plant, in which not a tinge of color sullies the snow-white transparency of the petals, unless it be a faint dash of straw color on the lip." The flowers appear on pendulous racemes, five on each, and are, in truth, from



their pearly whiteness and graceful form, objects of most surpassing loveliness. It is a native of Demarara, was imported by Mr. Bateman, and flowered in his rich collection at Knypersley, in April, 1835.

The genus *Burlingtonia* comprehends five species, "each of which vies with the other in loveliness; one of them, *B. venusta*, a native of Brazil, may be literally said to sink beneath its long heavy clusters of snow-white blossoms, just tinged with pink; a second, seated upon the highest branches of the cedrela tree, perfumes the forests of the same country with the odors of jonquils,—it is the *B. fragrans*; while a third, *B. rubescens*, delicately spotted with rose color, inhabits the trunks of the calabash tree, in the mission of Surimaguas, in the province of Mag-nas, the hottest part of Peru, and is loaded with blossoms all the year long; and the fourth, *B. rigida*, with many peculiarities, breathes the odor of the violet." Only the latter of them is yet in the collections of Britain, the Messrs. Loddiges possess-ing living plants. (*Bot. Reg.*, Jan.)

**SPIRANTHES** (in allusion to the spiral manner in which the flowers of many species are arranged.)

*bracteosa* Lindl. Long-bracted Lady's Tresses. A stove herbaceous plant; growing a foot high; with yellow flowers; appearing in May. *Bot. Reg.*, 1934.

Interesting, but by no means showy. The flowers appear on a long spike, and are small and inconspicuous. Introduced from Saint Catherine's, by the Messrs. Loddiges. (*Bot. Reg.*, Feb.)

**CHYSIS** Lindl. (from *Xôis*, a melting. The pollen masses of this plant are, as it were, fused together.)

*area* Lindl. Golden-flowered Chysis. A stove epiphyte; growing two feet high; with yellow flowers; appearing in June; cultivated in turfy peat and potsherds; a native of Venezuela. *Bot. Reg.*, 1837.

Another splendid plant of this order. The flowers are large and showy, of a deep golden yellow, and the lip veined with crimson; the racemes, upon which they are produced, are pendulous, often bearing ten flowers on each. It was discovered by Mr. Henchman, (collector for H. Lowe & Co.,) in Venezuela, where he describes it as "growing suspended from the lateral branches of trees, so that its pseudo bulbs, which, in their growing state, are uncommonly brittle, hang downwards, and wave in the wind, which would otherwise be sufficient to break them." It flourishes in pots of turfy peat and potsherds, suspended from the rafters of the stove. Messrs. Lowe & Co. have a good stock of the plants for sale. (*Bot. Reg.*, March.)

**BOLBOPHYLLUM** *Thouars* (from *bolbos*, a bulb, and *phyllon*, a leaf, in allusion to the leaves universally arising from a bulb-like stem or pseudo-bulb.)

*barbigerrum* Lindl. Bearded Bolbophyllum. A stove epiphyte; growing three or four inches high; with red flowers; appearing in June; a native of Sierra Leona. *Bot. Reg.*, 1942.

A most curious and remarkable plant, which, Dr. Lindley states, "a drawing is altogether incapable of representing," so strange a conformation exists in this species, and which can only be "evident in the course of the following description:"

"The number of flowers in each raceme is from fifteen to twenty. The bracts are, for the size of the flowers, rather large, round, ovate, a little stem-clasping, very pale green, and stained with crimson at the points . . . The lip is one of the most extraordinary organs known even among orchidaceous plants; it is a long, narrow, flexuous, sharp-pointed body, closely covered with a yellow felt; just within its point there is a deep purple beard of exceedingly fine compact hairs; on the under side, at a little distance from the point of the lip, is another such beard; and, besides, there is, at the end of the lip, a brush, consisting of very long purple threads, so excessively delicate that the slightest disturbance of the air sets them in motion, when they wave gently to and fro like a tuft of threads cut from a spider's web. Of the last mentioned hairs, some are of the same thickness throughout, others terminate in an oblong club, so that, when the hairs are waving in the air, and I do not know that they are ever at rest, a part float along gracefully and slowly, while the others are impelled, by the weight of their glandular extremities, to a more rapid oscillation." Nor is this all; the lip itself, with its yellow felt, its two beards, and its long purple brushes, is articulated with the column by such a very nice joint, that to breathe upon it is sufficient to produce a rocking movement, so conspicuous and protracted, that one is really tempted to believe that there must be something of an animal nature infused into the most unplant-like production."

Messrs. Loddiges possess it and another species with similar habits. (*Bot. Reg.*, March.)

Of the plants enumerated under this order, *Epidéndrum Skinneri*, *Oncídium Lanceanum* and *crispum*, *Cirrhexa tristis*, *Aspasia variegata*, *Burlingtonia candida*, *Chysis aurea* and *Bolbophyllum barbigerrum*, are the most remarkable and splendid.

### Liliaceæ.

#### SCILLA

*Cupaniana* Romer et Schultz, syn : *Ornithogalum cæruleum Rafinesque*. Cupani's Squill. A hardy bulb; growing two feet high; with purplish flowers; appearing in June; a native of Sicily. *Bot. Reg.*, 1878.

"A great rarity" . . . in Britain. The habit of the plant is similar to the *ornithogalums*; the flowers are of a dull purple, and appear on corymbose spikes; the pistils are bright blue, which contrast prettily with the purple petals. A good acquisition to our limited number of hardy June flowering bulbs. (*Bot. Reg.*, July.)

#### YUCCA

*dracœnis* Haw. Dragon-tree-leaved Adam's Needle. A hardy (?) evergreen plant: growing nine or ten feet high: with white flowers: appearing from May to August: a native of North Carolina. *Bot. Reg.*, 1894.

"The most stately of the genus." It grows along the sea-shore of North and South Carolina, intermixed with the *Y. gloriosa*. Dr. Lindley remarks that "what may be species and what varieties of this noble genus, is, in the present state of botanical information, impossible to say." We have ourselves plants raised from seeds of what we received as the *gloriosa*, which exhibit great variation in their habit; some of the leaves are erect and rigid, others thin and flaccid. The flowers of the present plant are distinguished by their spreading petals, the seg-

ments, instead of remaining closed in a globose manner, as in most others, expanding till they diverge from the flower stalk at nearly a right angle.

*Y. filamentosa* has stood our winters unprotected; and the past season we left out a seedling plant which we suppose to be *gloriosa* or *dracōis*, which has been uninjured: probably if they were planted on dry or rocky places there would be scarcely any danger of their being destroyed. No plants have a more striking appearance than these; and as they are easily raised from seed, or procured at the nurseries, at a reasonable price, we hope to see them generally cultivated. They are elegant ornaments of the green-house. (*Bot. Reg.*, Sept.)

*fiacida* Haw. Weak-leaved Adam's Needle. A hardy (?) perennial plant; growing two or three feet high; with white flowers; appearing in July. *Bot. Reg.*, 1898.

Distinct from the above, it being of a stemless habit. Its native country is unknown, but it probably belongs to North America. This and all the species grow in a sandy soil, generally upon the sea-shore. (*Bot. Reg.*, Sept.)

*NECTAROSCÖRDİUM* Lindl. (From *nectar*, honey, and *skordum*, garlic, in allusion to the honey pores in the flowers.

*stecum* Guss. Sicilian Honey-garlic. A hardy bulbous plant; growing two feet high; with purple flowers; appearing in May and June; propagated by seeds and offsets; a native of Sicily. *Bot. Reg.*, 1913.

A handsome bulbous plant, with an umbellate head of numerous large pendulous flowers, purple on the inner side and greenish-red on the outer. It has been heretofore referred to the genus *Allium*, but now constitutes a new genus. Perfectly hardy in England, and, being a native of the mountainous parts of Sicily, may prove so in our climate; at least, it can be preserved in a cellar or frame. (*Bot. Reg.*, Dec.)

*TRITELEIA*

*uniflora* Lindl. One-flowered Tritoleia. A frame bulbous plant; growing six inches high; with blue flowers; appearing in June. A native of Mendoza. *Bot. Reg.*, 1921.

A bulbous plant, with slender one-flowered scapes of pale blue blossoms of a starry form, smelling powerfully of garlic, not possessing much beauty. It was found by Dr. Gillies in Mendoza. (*Bot. Reg.*, Jan.)

## MISCELLANEOUS INTELLIGENCE.

### ART. I. Foreign Notices.

#### ENGLAND.

*Rhododendron Cunninghamii*.—This is the name of a new species which has flowered in the establishment of the Messrs. Young, of Ep-  
VOL. III.—NO. VI. 30

som, and which is said to surpass even the old *R. arboreum* in the richness and beauty of the color of its flowers. It was probably raised from seeds. The Messrs. Young have also a number of hybrid rhododendrons of their own production.—(*Pax. Mag. Bot.*)

*New mode of Heating by Hot Water, upon the same plan as that invented by Mr. Hogg*, described at p. 248, in Vol. II.—A new apparatus for heating by hot water is described, and illustrated with cuts, in *Paxton's Magazine of Botany* for March. The boiler is composed of a double cone of tin or copper, in shape nearly resembling a sugar loaf, with the top cut off. The inner cone is the furnace, the space between that and the outer form the boiler; so that a thin shell of water, about one inch or an inch and a half in thickness, surrounds the fire. From the top and the bottom of the boiler issue two pipes, fitted with union joints; at the junction of the upper joint with the boiler is a small steam-pipe, connected with a valve. The chimney is detached from the furnace, fitting on to it like the lid of a pot, and moveable, to allow the fuel to be introduced at the top of the furnace. The peculiarities of the chimney are a circular plate of strong iron, nearly as large as the opening of the furnace, suspended by three rods, over the fire, and causing the flame to play against the sides of the boiler, the draft taking place all around it, and a deep rim of sheet iron about three inches broad, in form of an inverted cone, attached, at its upper edge, to the lid, but leaving a space of about one and a half inch between itself and the circular plate or damper.

The boiler is placed on a ring of iron, rather broader than the bottom of the boiler, which is attached to a square frame of wrought iron, by which it is fastened to the brick work. The grate rests on one or more brackets, (as in the common cylinder stoves,) and is let down with a hook when it is required to clear the furnace.

The circulation of the water is on a similar plan to that generally in use. It is described as follows:—"The pipe from the upper union joint of the boiler enters the lower side of the cast-iron pipe, (a few inches from the boiler,) and from the other extremity of the range of iron pipes, a lead pipe, also from the lower side of the iron pipe, enters the top of the reservoir. A strong cask answers the purpose of a reservoir as well as anything, though an iron tank or close cistern of very thin copper would be more durable. From the lower side of this reservoir another lead pipe enters the union joint at the bottom of the boiler; at the highest point of the whole system of heating pipes, there is fixed on the upper side of the pipe a small air-pipe, where the other extremity is turned over into the supply cistern, so that any water casually thrown there is returned into that cistern. The supply cistern, the bottom of which is not lower than the upper side of the pipe, is placed over the reservoir, and communicates with it; by a small pipe entering the reservoir at the bottom. The steam-valve is placed just above the supply cistern, having a small basin or funnel round it, like those of the escape-pipe of steam-vessel boilers, so that water thrown out, or condensed steam, may fall into the supply-cistern. This escape of water or steam, however, can only take place when the water boils, which, if the boiler be properly proportioned to its work, can rarely take place. It is, however, a precaution which could not be safely omitted, though the danger of water being thrown out, there, is best obviated by loading the water with a small weight of two or three ounces, or a quarter of a pound, on the square inch. The apparatus being filled through the supply-cistern, the water enters the reservoir, and thence fills both boiler and pipes, the air escaping from the air-pipe, until the water standing in the bottom of the supply-cistern indicates that all is full. The fire being then lighted, the heated water flows into the iron

pipes, and thence into the reservoir, till all, having received one change of heat, passes again through the boiler, acquiring a fresh heat, till all is ready boiling. When the fire declines a counter current takes place; the hot water from the reservoir rises to the pipes, where, as it cools, it descends into the boiler, and thence into the bottom of the reservoir, till all be cool again—having rendered up its heat into the pit or house."

It can be applied to the heating of pits of every description, as well as green-houses, stoves, &c. &c. Engravings are annexed, illustrating the mode of applying this system to the former.

The proportions for constructing the boilers are also given: they are numbered from 1 to 4. Nos. 1 and 2 have only been tried, and are of the following dimensions:—No. 1, upper diameter, six inches; lower diameter, nine inches; perpendicular height, eighteen inches; thickness of water in boiler, one and a half inch; diameter of communication pipes, one and a quarter inch; diameter of chimney, three inches. No. 2, upper diameter, six inches; lower do., ten inches; perpendicular, twenty inches; thickness of water in boiler, one and a half inch; diameter of communication pipes, one and a half inch; diameter of chimney, three and a half inches. No. 1 is probably the smallest size generally serviceable: the whole quantity of water heated is about thirty gallons, and the apparatus of this size will amply suffice for two hundred or two hundred and fifty feet of glass.

No estimate is given of the probable cost of the apparatus.

Of the value of this mode compared with that of Mr. Hogg we are not able to state from this description. It is much more complicated, and will, from this circumstance, not be so likely to be adopted.—*Cond.*

## ART. II. Domestic Notices.

*Mr. Walker's Tulip Show.*—The first public tulip show ever made in New England, was to take place just as the present number was going to press, at Mr. Walker's garden, in Roxbury. According to an advertisement in the newspapers, we anticipate that amateurs and connoisseurs of this truly magnificent flower will have a fine treat from an inspection of the bed. We shall endeavor, by all means, to call and see it, and shall probably, in our next, give our readers a more particular account of the same.—*Cond.*

*Gentiana acutis.*—This lovely little plant has been in bloom, in all its elegance, in our garden, the past month. Three or four of its ultramarine flowers were expanded at one time, upon a very small plant, presenting to the eye one of the most attractive sights that it has been our pleasure to witness for a long period. Why is it that we do not oftener see it in our gardens? It has not, to our knowledge, flowered in the vicinity of Boston, unless at the Botanic Garden at Cambridge. In England the plants are extensively used as an edging for the flower borders, where it grows with amazing luxuriance, and throws up its elegant blossoms, excelling in their azure and metallic tint all other blue flowers. *G. crinita*, with its fringed corolla, is fine, but in color will bear no comparison with the *acutis*. It seems to prefer a damp, partially shaded situation, not exposed to great variations of heat and dryness. In such it is placed in our garden, and although the plants have

not the vigorous appearance they have in England, still they are sufficiently so to produce bloom. We shall try some experiments in its culture the present season, and, if possible, solve the reason of its generally puny growth and sickly character.—*Id.*

*Yucca filamentosa*.—The same plant of this species, mentioned, in our II, p. 419, as having stood out, during several winters, in the garden of Mr. Walker, has lived through the past one without the loss of a single leaf; it will probably throw up a fine spike of flowers.

After living through such a severe winter, which has killed many of our most common, and, generally considered, hardiest plants, not injured in the least for many years previous, there can be no danger of leaving it out hereafter.—*Id.*

*The New Zealand Flax, (Phormium tenax).*—A few seeds of this valuable plant have been kindly sent us by our friend, Wm. P. Jenny, Esq., of Fairhaven. The seeds were also accompanied with a specimen of the raw material. Some notice of this plant will be found in our vol. II, p. 192, and in the current one at p. 8. We have no doubt ourselves but it may be grown without any protection, during winter, in the Middle and Southern States; whether, however, it will endure the cold of the 42° of latitude, and north of that, we are in doubt. It is a native of New Zealand, a group of islands lying between the parallels of the 35° and 45° of south latitude. The French have succeeded in introducing it into their colony at Algiers; and the English government, aware of the value of this plant, the superiority of its fibre to the common flax, and its importance to her agriculture, have, by acts of the legislature, encouraged its cultivation in Britain as well as in her colonies. It is perfectly hardy in Cork, Ireland, in the 52° and 53° of latitude. Probably our readers recollect, in the notice of the plant, in vol. II, p. 192, that our correspondent was authorized to say that he would place a few plants in the hands of any gentleman who would give them a fair trial, and make known the result. We will also cheerfully distribute our seeds to any gentlemen who will do the same. It is certainly important to know whether it will stand our winters or not. The superiority of its fibre is already acknowledged. Perhaps by protecting the plants, which are herbaceous, the first and second years that they are set out, with a slight covering of straw or leaves, they would acquire such a size as afterwards to stand the severity of the winters. It is worth trial. Together with the *Morus multicaulis*, it will form an important article in our agriculture.—*Id.*

*Sowing large Patches of Mignonette.*—There is one thing you ought to suggest to your readers, viz., the sowing of large patches or beds of mignonette: generally so little is sown as to be almost useless. I intend to sow it profusely this spring in my garden. In the little front and back yards of a city dwelling there should be beds of it. In general fragrant plants are not as much cultivated as they should be.—*Yours, J., April 20, 1837.*

*Seven Years' Pumpkin.*—A correspondent writes us under a late date, that this famous pumpkin is decidedly superior, for making pies, to the common kind, or the cocoanut squash. A gentleman planted last spring about a dozen seeds, or less, and, although the season was so unfavorable to all kinds of vines, particularly squashes and pumpkins, the product was *astonishingly* great and well ripened. It keeps remarkably well, though not as long as some may suppose, from its name; but there is no doubt it can be preserved a great while longer than any other, and in a perfectly sound state. We have been presented with a few seeds, which we shall try the present season.—*Cond.*

*Origin of the Hermitage Vineyards.*—The origin of these celebrated vineyards is quite remarkable. "It is related that an inhabitant of Con-

drieu having turned hermit, he built himself a cell on an uncultivated sterile mountain in the neighborhood of *Tain*, on the Rhone, and employed his leisure hours in breaking to pieces the granite rocks around his dwelling. Having planted slips from Condrieu, they succeeded perfectly. His example excited emulation, and valuable vineyards soon covered the stony sides of the mountain from which the Hermitage wines are still raised." The site is a southern slope, so steep as to require walls in many places for the support of the soil. The annual produce of the Hermitage vineyards, according to Chaptal, is now about 2520 hectolitres, (66,500 gallons.)—*A. J. D.*

*Importing Plants in Glass Cases.*—Have you ever tried the importation of plants by having them set in earth in glazed boxes? The individual expenses would undoubtedly be enhanced, but in the end it would not cost half as much. Could not herbaceous plants be received in this manner? I should be glad to have it tried with carnations?—*J.*

### ART. III. *Fulton Market, New York.*

*Vegetables.*—Potatoes, per bushel: Kidney's, 75 cts. to \$1.00; common, 62½ to 75 cts. Turnips, per bushel: Ruta Baga, 75 cts. to \$1.00. Onions, per bushel, \$2.00. Beets, carrots and parsnips, per bushel, each, \$1.00. Salsify, per bunch, 8 cts. Horseradish, per doz. 37½ cts. Radishes, per bunch: long, 4 to 10 cts; turnip, 4 to 10 cts. Shallots, per bunch, 6 cts. Leeks, per bunch, 6 cts. Chives, per bunch, 3 cts. Cauliflowers, each, 25 to 50 cts. Lettuce, per dozen heads, 50 cts. to \$1.00. Dandelions, per half peck, 18 3-4 cts. Fetcues, per half peck, 12½ cts. Cabbage sprouts, per half peck, 18 3-4 cts. Spinach, per half peck, 12½ to 18 3-4 cts. Water cresses, per half peck, 12½ cts. Rhubarb, per dozen stalks, (unblanched,) 18 3-4 to 31½ cts. Peas, per half peck, 37½ cts. Bush beans, per half peck, \$1.00. Artichokes, per dozen heads, \$1.50. Tomatoes, per half peck, 50 cts. Asparagus, per bunch, 18 3-4 to 31½ cts. Pumpkins, each, 25 to 50 cts. Parsley, per bunch, 6 cts.

*Fruit.*—Apples, per barrel: New York Pippins, \$1.75 to \$2.00; Russets, \$1.50 to \$2.50; French Spitzemberg's, \$1.50. Cranberries, per half peck, \$1.00. Pine apples, each, 15 to 50 cts. Oranges, per doz. 37½ to \$1.00. Lemons, per doz. 25 cts. Coconuts, each, 6½ to 9 cts. Yams, per pound, 5 cts. Walnuts, per pound, 4 to 8 cts. Filberts, per pound, 3 to 4 cts.

*REMARKS.*—Beets, parsnips and carrots are scarce: of salsify scarcely any. Radishes just begin to come in. Cabbages are quite gone. A few cauliflowers, received from Charleston, are in the market, but they are scarce. Watercresses very plentiful. Celery and squashes are all out of the market. Peas and string beans have been received in considerable quantities from Charleston. Lettuces are generally of inferior quality. What artichokes are offered have been received from Charleston. Spinach and asparagus are very abundant. Tomatoes have come to hand from Matanzas, and are sold at moderate prices.

Grapes and shaddocks are not in market. Pears are gone. No watermelons yet received. Cucumbers have not yet made their appearance. Pine apples are abundant.—*Yours, J. H., New York, May 23, 1837.*

## ART. IV. Faneuil Hall Market.

		From	To			From	To
<i>Roots, Tubers, &amp;c.</i>		\$ cts.	\$ cts.	<i>Squashes and Pumpkins.</i>		\$ cts.	\$ cts.
Potatoes :				Winter crookneck, per pound,		6	8
Common, { per barrel, ....	1 50	1 75		West India, per pound, ....		2	3
	50	55		Pumpkins, each, .....		12½	20
Chenangoes, { per barrel, .	2 00	2 50					
	75	1 00		<i>Pot and Sweet Herbs.</i>			
Eastport, { per barrel, ....	3 00			Parsley, per half peck, .....		25	
	1 00	1 25		Sage, per pound, .....		17	20
Nova Scotia, { per barrel, .	2 25	2 50		Marjoram, per bunch, .....		6	12
	75	1 00		Savory, per bunch, .....		6	12
Turnips: common,				Spearmint, per bunch, .....		6	
per bushel, .....	1 00						
French, { per barrel, .....	1 50			<i>Fruits.</i>			
	50	75		Apples, dessert :			
Onions :				Common, { per barrel, ....	2 00	2 50	
per bushel, .....	2 50	3 00			75	1 00	
red, { per bunch, .....	4	6		N. Y. Pippins, { per barrel, .	2 50	3 00	
white, { per bunch, .....	4	6			1 50	2 00	
New Onions, per bunch, ..	6			Russets, { per barrel, .....	2 00	2 50	
Beets, per bushel, .....	1 00				1 00	1 25	
Carrots, per bushel, .....	1 00			Baldwins, { per barrel, .....	2 00	2 50	
Farsnips, per bushel, .....	1 00				1 00	1 25	
Salsify, per bunch, .....	12½			Pears :			
Horseradish, per pound, ....	12			Baking, { per barrel, .....	3 50	4 00	
Radishes, per bunch, .....					1 50	2 00	
Scarlet Short top, .....	6			Watermelons, each, .....	25	50	
Scarlet Turnip, .....	6			Cranberries, per bushel, ....	6 00	7 00	
Shallots, per pound, .....	20			Pine Apples, each, .....	17	25	
Garlic, per pound, .....	14			Cocoanuts, each, .....	3	6	
				Grapes: (foreign,) per pound,			
<i>Cabbages, Salads, &amp;c.</i>				White Malaga, .....	none		
Cabbages : per dozen,				Purple Malaga, .....			
Savoys, .....				Cucumbers, each, .....	12½	25	
Drumhead, .....	none.			Oranges, { per box, .....	3 50	4 00	
Red, .....					25	50	
Cauliflowers, each, .....	25	50		Lemons, { per dozen, .....	3 00	3 25	
Lettuce, per head, .....	4	6			25	37½	
Rhubarb, per pound, .....	4	6		Shaddocks, each, .....	25		
Peas, per peck, .....	1 00			Walnuts, { per barrel, .....	4 00	4 50	
Spinach, per peck, .....	17				2 25	2 50	
Dandelions, per peck, .....	12½			Almonds, (sweet,) per pound, ..	12	14	
Cabbage sprouts, per peck, ...	17	20		Filberts, per pound, .....	4	6	
Asparagus, per bunch, .....	8	10		Castana, .....	3	6	

REMARKS. A more favorable season than the last has tended to stock the market with early vegetables of excellent quality in good time. Some of the first sowings of beans, and various kinds of vines, have been cut off, from the present heavy rains; but we anticipate the receipt of a crop at least ten days sooner than last year. Potatoes are growing more scarce, and will probably advance somewhat considerably on the present rates: there have been but few arrivals from eastward; what have come were Chenangoes from Maine; we believe an order has been passed in Nova Scotia, prohibiting their exportation from that place; if so, the stock will be unexpectedly reduced, and the principal resource for a supply will be cut off; very large quantities have been received from Portsmouth and Dover, N. H.; Eastports are nearly gone. Flat turnips are all gone; but there is a tolerable supply of the



long yellow French. Old onions are exceedingly scarce; but new ones, of very fair size, are now received. Radishes are very abundant, and of handsome appearance.

Cabbages are nearly or quite all gone, as are also cauliflowers. Lettuces now come in of first rate quality. Rhubarb is as abundant as we have ever known it. Spinach, dandelions, &c., a good supply. A few peas were received this week from Philadelphia; they were rather small; they will undoubtedly come to hand in considerable quantities, from New York, in a few days. Asparagus, considering the earliness of the season, comes to hand plentifully, and of good size. Of West India squashes there has been a few arrivals, of large lots, and the market is just now overstocked, so much so, that prices have fallen considerably.

The fruit market continues exceedingly dull; indeed, for the lateness of the season, more so than could have been anticipated. Undoubtedly the pressure of the times has had a sensible effect in diminishing the sales, when it is recollected that, generally speaking, they are luxuries, and not necessary articles of food. Of apples there is a plentiful supply, and of excellent quality: it has not probably happened during several years that they could be bought as cheap in the month of May as they could in November; but such is the fact now. The finest Baldwins and russets, all carefully picked, sound, and of good size, can be had at the same rate as they were purchased for in the fall, soon after the gathering of the crop. Pears are about gone; we believe the last were disposed of this week. Watermelons continue to come to hand from the West Indies, and prices have now become moderate. Pine apples are unusually plenty for the time of the year; the arrivals have been some weeks earlier than heretofore. Cucumbers have come to hand the past fortnight somewhat more freely, and there has been a reduction in prices. Cocoanuts are now quite an article of trade; large quantities are brought here and sold, and perhaps it may be well to quote them hereafter. Oranges and lemons are rather scarce; West India oranges, of fine size, command the prices per doz. in our quotations. Walnuts are yet plentiful.—*Yours, M. T., Boston, May 23d, 1857.*

## HORTICULTURAL MEMORANDA

### FOR JUNE.

UP to the date we now write, (May 24,) the weather has been rather cold and chilly, and easterly winds prevail; these, with an abundance of rain, which has flooded all low land, will destroy many seeds which have been already committed to the soil. Squashes, cucumbers, Lima beans, and sweet corn, vegetables, which are almost invariably planted *too soon*, will be destroyed in many instances. We wish we could convince both gentlemen and amateur gardeners that such early planting as is generally practised in New England is not so favorable to many, indeed most, crops, as if made later in the season. With the exception of a few kinds, the surest time to plant to have the seeds vegetate well, and sufficiently early to procure a good crop, is about the first of June. Lima beans *will not* vegetate until the ground is warm, and so with regard to cucumbers and squashes. As agricultural information is diffused, the prejudices in favor of such early planting, now in practice, will give way, and the more natural one, of sowing

when the earth is in a state to receive seeds, and the air warm enough to cause them to start into life and vigor at once will be adopted.

We mentioned in our last, p. 186, in a few seasonable hints to the florist, that there would be yet sufficient time to sow nearly *every* variety of seed: we say *every*, because they do not number more than six or eight, which, of necessity, require to be planted sooner. From now till the 10th or the 15th of the month, sowings made will do well and flower abundantly; and for fall flowering, such as the candy tuft, &c. should be planted about the 25th, or not until the 1st of July. The flower borders will now begin to present a gay aspect; and if there is a good assortment of perennials, the same smiling appearance may be kept up the whole season.

#### FRUIT DEPARTMENT.

*Grape vines*, in the grapery, will now be swelling their fruit; syringe frequently, and cut away the superfluous leaves and branches, to admit all the light and air possible. Those in the open garden begin to push rapidly.

*Strawberry beds* will need looking to, the weeds and grass kept out, and if in rows at some distance, short hay or light straw should be laid each side, for the trusses to fall upon, and keep the fruit from being spattered with the earth.

*Grafting* may yet be performed.

*Peach and other fruit trees*, in pots, should be watered with liquid manure.

*Gooseberry bushes*: look after these, that the caterpillars may not destroy them.

#### FLOWER DEPARTMENT.

*Dahlia roots*: this month may be considered as the proper one for planting out dahlias. From the 1st to the 25th, or even to July, may be stated as by no means too late to procure a good bloom. (See p. 200.)

*Annals*: continue to sow all sorts; transplant out those which have been grown in pots.

*Tulips* will be now in bloom; they should be shaded, to prolong their flowering.

*Rose bushes*, now pruned in, short, will push new shoots, which will produce flowers a fortnight later than if it had not been done.

*Perennials and biennials* should be planted this month. They will flower generally if planted later, but by timely sowings they will stand the cold of winter much better.

*Amaryllises, ixias, gladioluses*, and similar bulbs done blooming, should be sparingly watered, and soon set at rest.

*Ericas* should be now propagated.

*Geraniums* should be propagated this month.

*Chrysanthemums* should be divided, and planted in small pots.

*Camellias* should now be removed to the open air, in a shady place.

*The green-house*.—Remove all kinds of roses, geraniums, &c. &c. into the open air, and let air circulate freely through the house. Such plants as are left in should be duly attended with water, &c. Look out for the red spider and the aphid, and apply the requisite cures.

#### VEGETABLE DEPARTMENT.

*Celery* plants, raised in pots or boxes, should be transplanted into small beds, that they may acquire strength and size before their final setting out.

*Cucumbers*, in hot-beds, should have an abundance of air, and if the heat has declined too much, the bed should have a new lining.

# THE MAGAZINE

OF

## HORTICULTURE.

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JULY, 1837.

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### ORIGINAL COMMUNICATIONS.

ART. I. *Some Remarks upon the Production of new varieties of Strawberries, from Seeds.* By the CONDUCTOR.

WE have, for some time, had in view an article on the production of new varieties of strawberries from seed, in order that our gardens might be supplied with what is at present a very great *desideratum*, viz. choice kinds, equalling, if not surpassing, the Keen's seedling in size, as prolific a bearer, and of as good or superior flavor to that, or the Downton which we have always considered a very delicious fruit, but partaking of the *hardiness* of the mulberry (or pine, as it is sometimes called,) the early Virginia, and similar vigorous growing varieties, probably of American origin, which stand our severe winters without the least protection; while the former and most other English varieties, which have obtained, and, undoubtedly, justly, a celebrated reputation among the horticulturists of Britain, suffer from the long duration of our winters, and, in most instances, perish from their intense cold. The disappointment which cultivators have been subject to, since the introduction of the fine European kinds, has increased to such a degree, that but few of the once remarkable sorts, compared with what were grown two or three years ago, are to be found in our gardens. Some individuals, with more prejudice than good judgment, have denounced Keen's seedling, and others equally excellent, as unworthy of a place in the garden; and if the former was rated according to its general product, under the ordinary care given to other varieties, and planted in a similar soil, we are not confident but it would come under that class of fruits which some authors have styled as "*outcasts*." But two or three instances

have come to our knowledge, in which this variety has grown vigorously and produced its fruit in perfection, for more than one season, in this country. Several other English varieties are equally as tender as the Keen's seedling, and not to be depended upon for a crop, unless protected through our winters: it is therefore of great importance to possess a variety or varieties of equal or better qualities than those we have just mentioned, and of a character sufficiently hardy to live through the most rigorous cold unhurt. In no way can this be done but through the medium of the seed acted upon by the pollen of the various kinds.

It is many years since Messrs. Knight, Keen and others, first produced new and superior varieties to those previously in cultivation; but the great success of their experiments, which were pursued with great zeal, led them to continue them, and the result has been the production of an immense number of new kinds, but of which only ten or twelve can be said to be really worth growing. None of these do well in our climate, unless the Downton, which may be an exception, although it does not flourish with the vigor of the American sorts, but produces a fine fruit, and the vines are much hardier than other kinds. The Methven castle or Methven scarlet is a large and tolerably hardy strawberry, but it is very destitute of flavor; some new and said to be very remarkable sorts have been made known within a year or two, but they have not yet been introduced, and their value in our climate not yet ascertained: when, however, we consider the great difference between the climate of this country and that of Great Britain, it is somewhat doubtful whether any of their fine varieties will ever be sufficiently hardy to stand our winters.

Convinced, from such conclusions, that we must look to our own gardens for *hardy* varieties of strawberries, we attempted, about four years since, to raise a number of plants from seeds, with the hope of selecting some one or two which would possess all the good properties of a strawberry, and of a character sufficiently hardy to stand our winters unprotected; and although at the present moment our plants have not been fully tested, they have so far that we are assured of something much better than *any* of our previously known American kinds, and we are not yet certain but what equally as fine in flavor as the best English varieties. From want of room to arrange the plants, a year has been lost in ascertaining their respective merits; but, another season, we anticipate a show of some very superior specimens of fruit.

We had intended to give some hints on the production of new varieties, some time since, in order that amateurs might be induced to try the experiment the present year; but as we have

been prevented by the quantity of other information on hand, we do so now, in order that preparations may be made for next spring. In the mean time much can be done by encouraging such plants as it is desirable to save seed from, that they may acquire strength to throw up large trusses of blossoms, and consequently larger and superior fruit.

The first thing to be considered, is, what particular varieties are best suited for this purpose. If *hardiness* is, and it certainly should be, the first and great object of the cultivator, he should endeavor, if he is not possessed of the plants, to procure such as are suitable; if earliness is an object, that kind should be selected as a parent whose fruit is perfected the first in the season; if size and flavor are objects, and they certainly are, next to hardiness, those varieties which are noted for these characters should be chosen. It should be the purpose of the raiser of new varieties to combine all these properties as much as possible; that is, to procure hardy, large, and superior flavored fruit: earliness is not so much desired as the other qualities; for in proportion as the bearing season is advanced, the size of the fruit is lessened, as it has a shorter time to perfect its growth. As good varieties to breed from, we would mention the early Virginia, Methven scarlet, and mulberry or pine; and as sorts to mix with these, the Keen's seedling, old pine, and Downton.

Perhaps the following intermixtures would produce excellent varieties: If to procure a hardy, large and well flavored one, select the Methven scarlet for one of the parents; let this be impregnated with the Keen's seedling, and, perhaps, the Downton. We have before remarked, at p. 101, that fertilization can be effected with at least two, and, perhaps, more kinds, and combine the characters of both; in this case the stigma may be impregnated with one variety, which may be tender, to impart its flavor, or size, or both, and with another for its hardiness or capability of withstanding our winters unhurt. Thus the early Virginia may be impregnated with the Keen's seedling for productiveness, size, and firmness of flesh, and the Downton for flavor; or the Keen's seedling may be impregnated with the early Virginia for hardiness, and the Downton for flavor; the Methven scarlet, which is hardier than any other of the large English strawberries, may be fertilized with the Keen's seedling and the Virginia, or the mulberry: these are but a few of the intermixtures, with a limited number of sorts; but the experiment can be tried with the Chili, roseberry, Southborough, melon, Wilmot's superb, Myatt's new pine, &c.

The cultivator who is desirous of raising new varieties should now prepare his bed for that purpose, by cutting away all superfluous runners as fast as they appear, and encouraging the old plants to make as vigorous a growth as possible; the beds should

be watered in dry weather throughout the summer, and upon the approach of autumn top dress them with an inch or two of old well decomposed manure; the Keen's seedling and other English varieties, upon the approach of frost, will need a covering of leaves or straw, to protect them from injury. This is all that need be done.

When the spring opens, the plants should be looked over and divested of all dry or decayed leaves; the soil, if quite rich, need be only hoed, to destroy the weeds and loosen the surface, that the rain can penetrate easier; if not, however, of a rich nature, let another top dressing be added. It is after this that the plants will require much attention at the hands of the cultivator; if any runners make their appearance before the trusses of fruit, they should be cut away carefully; when the flower buds appear, cut away all the trusses, but one to each root; and as soon as the buds are ready to expand, let them be taken off one by one, leaving only the first fruit, (the one at the base of the truss of flowers;) the whole strength of the root will then nourish the fruit that is left, and it will acquire a good size; if the weather should prove to be dry, give good waterings occasionally, and if with liquid manure, so much the better. No other care is requisite but to keep the runners cut away until the fruit is gathered for seed.

But we come to the impregnation of the flowers. As soon as the first bud expands, which is generally the one at the base of the truss, with a very small, sharp pointed, scissors, cut away the anthers which are situated at, and around, the base of the embryo fruit; as soon as this is done tie a piece of gauze over the whole, in order to keep the bees and the wind from carrying the farina of other flowers to the stigma; the day after this operation is performed select the stamens from the variety or varieties with which it is intended to fertilize the stigma, always taking them from a *healthy and vigorous plant, and a well formed fruit*: take the gauze from the flower to be impregnated, and, with a camel's hair pencil, apply the pollen to the stigma, being very careful to touch every part, or an ill formed fruit might be the result; tie the gauze over again immediately, and all is finished. The cultivator should bear in mind that the embryo fruit should be *well formed* and not depressed, coxcomb-shaped, or unhand-somely formed in any way; otherwise the progeny might exhibit the same defect. Be careful to preserve a memorandum of the variety or varieties with which every plant is impregnated.

All the fruits for seed should be managed in the same manner; and when they are picked wash out the seed immediately, and put it in papers, with the remarks and names attached. It may remain in the seed room until February, or it may be sown in a frame, in the open garden, in August, which method some

growers have recommended; for our own part we prefer keeping them until February or March, and then sow them in pots or pans, in the green-house, or in a cold frame. Make the soil rich and fine in which the seed is sown, and keep them tolerably moist until they vegetate, which will be in from one to four months.

When the plants which appeared first have acquired a few rough leaves, take them out of the seed pans or boxes, and place them in small pots, one in each, and in this manner proceed until May, when the whole should be set out in a well prepared bed, placing the plants at a good distance from each other, where they are to remain to fruit. The ground should be made tolerably fine and quite rich. Manage the plants in the same manner as old beds, and keep nearly all the runners cut off until the first fruit has appeared, so that the merit of a seedling may be ascertained before it is propagated. The second year they will produce fruit, when all their properties should be noted down carefully, and those which are of a superior character retained for cultivation, and the others rooted up and destroyed. The second year, however, will not always thoroughly test the character of a fruit; and it would be better to let the plants bear another season, when their superior strength and vigorous condition will enable them to produce large and fine specimens of fruit.

Almost every form, color and property, will be exhibited in the fruit; some will be fine flavored but miserable bearers; some great producers, but the fruit small; some with very large fruit, but without any flavor; some coxcomb-shaped, others long, flat, round, &c; some smooth on the surface, others with the seeds imbedded; some scarlet, others dark red, and all the intermediate shades of color; and a great variety of foliage will be shown: the grower, when summing up the qualities of a fruit, should take each into consideration, and give them their due estimation. As a standard of excellence, a fruit should possess nearly the following properties: *vines* hardy, capable of living through our winters without injury; *leaves* large, not so numerous as to shade the fruit too much; *scapes* of a moderate length, so as to elevate the fruit above the ground, stout, and well branched, with numerous peduncles; *flowers* large, produced tolerably early, and every one succeeded by a well shaped fruit; *fruit* large, round or ovate, well formed, of a good color, and polished surface; *flesh* firm, juicy, scarlet, without a core, of a brisk rich grateful flavor.

The principal of these properties may be thus valued:—Hardiness of the vines, 3; flavor, 3; size, 2; productiveness, 2; firmness of flesh, 2; color, 1. The chance of raising a very superior fruit may be considered as one to five hundred.

When the grower has decided which to save and which to reject, he should at once proceed to destroy those which are

considered as not worth cultivating; for if left in the garden they are apt to be transplanted into a new bed, and thus confusion may arise among the varieties: because a great many of the plants produce good fruit is no reason they should be suffered to remain. The stock of fine fruit can be increased to any extent in a year or two.

We have made these remarks at this time in the hope of inducing amateurs as well as nurserymen to attempt the raising of new varieties of strawberries. As yet the plants of nearly all the kinds in cultivation have been introduced from the English gardens, and are not suited to the severity of our climate. There is no reason to doubt that strawberries of superior flavor and of equal size to any ever originated by English horticulturists can be produced in this country, and we hope the time is not far distant when we shall not be dependent upon England for new varieties.

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## ART. II. *Roses—new Varieties.*—By AN AMATEUR.

IN a former communication I mentioned that Mr. Samuel Feast, of this city, had produced a large number of new varieties of roses, rhododendrons, azaleas, &c. Some of the roses are now in bloom, and many of them may be deemed valuable additions to our floral collections: I mean *additions*, for, unlike many new things with which we are blessed from year to year, by our friends over the water, they are distinct from all other known individuals—they are themselves alone. They are not old plants with new names either, as very many new plants turn out to be. And, by the way, permit me to digress for the purpose of giving you an instance of the *re-christening* of plants, evidently for the purpose of increasing sales. In one of your numbers of last winter, a correspondent, writing from Philadelphia, mentioned the *monthly cabbage rose*, that they had in Philadelphia, in such terms that I immediately sent to the person whom I guessed was the writer, for the monthly cabbage rose spoken of, referring to the Magazine for the description. He sent me the rose—and what do you think it proves to be? Why, the *Gloria de France*; the same we have had for some time, and of which one of our gardeners (Mr. John Feast,) had an abundance of saleable plants, the stock of which he got from Phila-



delphia. There is no mistake about it—the plants are in bloom, and speak, as loud as full-blown roses can speak, for themselves. Besides which, the label on the plant which I received bears this inscription, (in the hand-writing of the person of whom I obtained it, and who I guess to be the author of the article above alluded to in your Magazine.) The label is “Gloria de France, or Monthly cabbage.” Now, sir, what is the object of giving a new name to this rose, but to enable the person to sell them to those who had them before under another name? When your Magazine arrived here with the notice of the monthly cabbage, all our gardeners and many amateurs were on tiptoe to get it. I got the start of them in my hurry to be cheated, and saved them the expense and trouble of getting what they already possessed. The rose is a very fine one, and is not inappropriately called the monthly cabbage; but its other and well known name should have accompanied the new one, to prevent mistakes, and paying dearly for duplicates. By the way, the monthly cabbage sells for something more in Philadelphia than the Gloria de France, which I suppose is to pay for the trouble of giving it a new name.

But to return to Mr. Feast's roses. I have just seen six Ayrshire roses, four pure white and two pink, all of exquisite form, and very double. The whites are pure almost as snow, and the pinks exquisitely rich and bright. But the greatest acquisitions are those called by him *La belle Triumphe*, the crimson Ayrshire, the *perpetual Bourbon*, and the double prairie rose. *La belle Triumphe* is very dark crimson in the centre of the flower, growing paler towards the circumference, till it gets quite light pink, resembling somewhat the flower of the *microphylla* rose. It is very double, and cabbage form. The *perpetual Bourbon* is like the old Bourbon rose in form and color, but is a *perpetual bloomer*. The double prairie rose was produced from the seed of a plant raised from the seed of the wild rose of the western prairies. It is decidedly one of the most beautiful roses I ever saw. It is of the richest possible crimson, of the cabbage form, and when fully open forms a perfect goblet, the petals forming a cup so close and compact that it will hold water. In the centre there are a few imperfect petals, beautifully striped with white and yellow. It is altogether a most valuable addition to our gardens. Some of the Ayrshire roses are the most lovely white flowers you can imagine. These are only a few, a very few, of the new varieties of Mr. Feast's roses; but they are so very striking, that I thought I would attempt a description of them, as a confirmation of what I have before written to you. I ought to mention, also, that Mr. John Feast has a very large collection of new varieties (also produced by cross impregnation,) of roses, rhododendrons, pelargoniums, azaleas, &c. “Last, not least,” permit me to mention a couple of roses in my own collection, that I think

highly of. They were raised from seed by a much respected lady of South Carolina, now deceased, who did me the great favor of sending them to me, and for which favor I cannot be sufficiently grateful to her memory. One is the *Herbemonti grandiflora*, a very tall growing plant, deep rich pink flowers, double and exquisitely beautiful. The only fault with it is the simultaneous opening of nearly all the buds, thus producing a mass bloom, covering the plant from top to bottom, (it is seven feet high,) and thus making the time of its flowering short, only about ten days: it is evidently a hybrid. The other is the *Herbemont musk cluster*. The flowers are double the size of the common white musk cluster, equally white, much more fragrant, and the plant is far more prolific and a perpetual bloomer. Last year my plant had three branches; this year it has upwards of one hundred and fifty branches, all bearing the buds of large clusters of flowers. Of all plants I ever saw, I never came across so thrifty a grower. The fragrance is so profuse that it fills the air for fifty yards around. This plant was raised from seed by the late Mrs. N. Herbemont, of Columbia, S. C., who sent me the original plant, retaining only a few cuttings for herself. Like her most excellent husband, whose writings I have often seen gracing your pages, this lady was passionately fond of floriculture, and produced many new varieties of roses and other plants. Among them she produced a very large white rose, very double, pure white, tall growth, and a *perpetual bloomer*. Three times has she and my very excellent friend, her husband, sent me cuttings and slips of it, but with all my exertions I have never been able to make them grow; and Mr. Herbemont informs me that he has also failed in every attempt to propagate it, by budding, grafting, layering, &c. I do not however despair of getting it, as Mr. H. will persevere in his trials to produce a rooted plant. From what I have written, you will perceive the propriety of the names given the Herbemont roses.

Yours, respectfully,

AN AMATEUR.

Baltimore, June 10, 1837.

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ART. III. *Some Account of Bartram's Botanic Garden.* By  
ALEXANDER GORDON, Botanical Collector.

SIR,—The nature of my pursuits, leading me at many times to parts where I have no opportunity of seeing any of the peri-

odicals of the day, I have therefore to inform you it is only recently I have had the pleasure of perusing the pages of your useful and admirably conducted Magazine. It will at all times afford me great pleasure if I can contribute any useful matter for its pages. In the first place I shall commence with a subject, the information respecting which I shall give, will, I am assured, afford you great satisfaction.

*Bartram's Botanic Garden.*—I have recently visited this establishment, which must, to every admirer of nature, on each successive examination, afford pleasure and delight. In your number of the Magazine for this month you deeply regret that the Baltimore rail-road, at present constructing in its vicinity, will “cut up the grounds in such a manner as to entirely destroy their beauty, and cause the destruction of some of the old and beautiful specimens of trees which ornament the place, and which have so long served as a memento of the zealous labors of the elder Bartram and his sons.”

It is with the utmost satisfaction I have to inform you such will not be the case. The Rail-Road Company, although the law permitted them to do so, have, with a degree of good taste and national feeling deserving the highest commendation, determined to leave unmolested the whole of the garden—a determination which will put them to ten thousand dollars' additional expense,—but for which they will be rewarded with the grateful thanks of every individual who has experienced the gratification of examining the numerous and gigantic specimens of forest trees and shrubs which adorn the place.

The rail-road is now constructing, and passes through part of Col. Carr's grounds—but as it was occupied only as a nursery, it does not at all interfere with the garden. In fact, from the manner in which Col. C. intends to lay out the space between his house and the rail-road, it will, in my opinion, be a decided improvement, and add another feature of attraction to this so deservedly far-famed establishment.\*

I am yours, most respectfully,

ALEXANDER GORDON.

*Philadelphia, June 20, 1837.*

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\* Col. Carr informed me it is his intention to dispose of the garden, on condition that it might be purchased by either the Philadelphia Horticultural Society or any private gentleman who would preserve the characteristic features of the grounds. To the Philadelphia Horticultural Society Col. Carr, with a feeling which does him credit, would make a sacrifice. 'Tis sincerely to be hoped the ladies and gentlemen of this institution will avail themselves of this opportunity to obtain a place which, as far as respects a garden, will render their Society unparalleled by any other in America.

[We shall be extremely happy to hear from our correspondent often: for the above gratifying information Mr. Gordon will please accept our sincere thanks.—*Cond.*]

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**ART. IV. Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some Account of those which it would be desirable to introduce into our Gardens.**

*Edwards's Botanical Register*, or Ornamental Flower Garden and Shrubbery. Each number containing eight figures of Plants and Shrubs. In monthly numbers; 4s. colored, 3s. plain. Edited by John Lindley, Ph. D., F. R. S., L. S., and G. S. Professor of Botany in the University of London.

*Curtis's Botanical Magazine*, or Flower Garden Displayed, containing eight plates. In monthly numbers; 3s. 6d. colored, 3s. plain. Edited by Sir W. J. Hooker, L.L. D., F. R. A., and L. S., Regius Professor of Botany in the University of Glasgow.

*Paxton's Magazine of Botany*, and Register of Flowering Plants. Each number containing four colored plates. In monthly numbers; 2s. 6d. each.

*The Horticultural Journal*, *Florist's Register*, and *Royal Ladies' Magazine*. Dedicated to the Queen, Patroness, the Rt. Hon. the Earl of Errol, President, and the Vice Presidents of the Metropolitan Society of Florists and Amateurs. In monthly 8vo numbers, with a plate; 1s. each.

**DICOTYLEDONOUS, POLYPETALOUS, PLANTS.**

**Ranunculaceæ.**

**DELPHINIUM**

var. *Barlowii* (garden variety) Barlow's Delphinium. A hardy perennial plant; growing from six to eight feet high; with blue flowers; appearing in summer; increased by division of the root. Bot. Reg., 1944.  
*Delphinium phœnicium* of some catalogues.

This is a very splendid double variety of the larkspur, "presenting to the eye," as Dr. Lindley remarks, "the most gorgeous mass of lapis-lazuli blue that he is acquainted with in the vegetable kingdom." Messrs. Rollinsons, of Tooting, from whose garden the specimen was furnished, from which the drawing was taken, state that they received it from a friend in Manchester several years ago, under the name of *Delphinium Barlowii*, and they believe it to have been raised by a florist of that name in the neighborhood of Manchester: undoubtedly it is a

hybrid production, and, supposed, between *D. grandiflorum* and *elatum*, it partaking in its growth and flowers of the character of both. It is very easy of cultivation, and appears to flourish in every soil and situation. Plants of it remain in bloom "throughout the whole summer and autumn, the principal stems sometimes attaining the height of seven or eight feet, and much branched." Messrs. Rollinsons have disposed of plants to most of the nurserymen in Britain. It is a fine variety, being of a deeper and more brilliant blue than the double Chinese, and the flowers set together more thickly upon the spikes. We received a plant from England, a few years since, under this name, but, unfortunately, it died. We believe it is not, at present, in any of the nurseries or private gardens in this country, but its great beauty should claim for it a place in every collection of elegant plants, and we hope it will be soon introduced. It is, undoubtedly, as hardy as the *D. montanum*. (*Bot. Reg.*, April.)

### *Papaveraceæ.*

**CHRYSEÏS** (*Chryseis*, a celebrated Homeric beauty: the name allusive to the golden color of the flowers.

*compacta* Lindl. Dwarf Chryseis. An annual plant; growing six inches high; with yellow and orange flowers; appearing in summer; increased by seeds. *Bot. Reg.*, 1948.

This is another species (?) of the well known and universally admired genus *Eschscholtzia*, which, it now seems, must give way to that of *Chryseis*. The continual changing of generic and specific names of plants by botanists has tended to create great confusion in their nomenclature, and it is much to be regretted they so often take place. That there have been errors, both with Linnæus and his followers, there can be no doubt; indeed, from the manner in which many plants have been described, from dried specimens alone, it must have been impossible not to have recorded some mistakes; these, however, should only be corrected with great deliberation and care. Modern botanists have been denounced for changing the names of plants; for making several new genera from one old one; for entirely abolishing others, and for placing many genera in different orders from those in which they have been formerly situated: not to admit that such corrections may sometimes, and perhaps frequently, be made, would be at once acknowledging, what few would be willing to, the attainment of perfection in the science, even in its infancy. That some needless alterations have been made is well known, but that others have been so, correctly and judiciously, is equally apparent; and a long time must elapse before the immense number of plants already discovered will be assigned their proper places in the respective systems of Linnæus and Jussieu.

With regard to the alteration of the genus *Eschscholtzia* to that of *Chryseis*, all must allow, however correct or incorrect it may be, "that the substitution of so harmonious a word as *Chryseis* for the barbarous combination of conflicting consonants

in the word *Eschscholtzia*," is a welcome change. To give our readers, particularly those who are interested in the subject, an opportunity of judging of the propriety of the alteration, we copy the following remarks: Dr. Lindley states that they were sent him by a botanical friend, on whose correct judgment he could place great reliance:—"It is surprising that so great a violation of an established botanical rule, as is contained in the generic name *Eschscholtzia*, should have been so long permitted to remain. The rule to which we refer, is, that two different genera should not both be named in honor of the same individual, or of the same family. Thus, for example, the name *Linnaea* must be held to commemorate both the elder and the younger *Linnaeus*, and it would not be allowable to establish a different genus *Linnaea* in honor of the latter. It is evident that nothing but confusion would arise from neglecting a rule of such plain utility.

"Now, in the present case, the generic name *Eschscholtzia* has been previously appropriated to a genus among the *Labiaceae*, and dedicated to the memory of *Eschscholtz, senior*; this genus has been universally received, among others by Mr. *Bentham*, in his recent arrangement of the *Labiaceae*; and, consequently, the same name cannot be applied with any propriety to designate a different genus of the order *Papaveraceae*, in commemoration of his son *Eschscholtz, junior*, the botanist who accompanied *Kotzebue* in his voyage round the world. It is true that we find the former name spelt *Elscholtzia* in botanical works, which appears to make a difference between them; but this has no better foundation than an error of the press; the two individuals to whom the genera are dedicated, standing to each other, as we have already remarked, in the relation of father and son. It is time, therefore, that this anomaly should be removed from our nomenclature, and that the name should be preserved to the plant to which it was originally appropriated."

Dr. Lindley considers these observations "as unanswerable," and has consequently figured this species (or variety) under the name *Chryseis*, to which both the old *californica* and *crocea* belong. We can hardly believe the *crocea* and the *compacta* to be any thing more than varieties of the *californica*; we have raised the *crocea* from seeds, varying in shades of color from yellow to deep orange. Mr. *Nuttall* has informed us that he saw both the orange and yellow ones growing together in California, and he considers one as only a variety of the other. *C. californica* is, however, biennial, or of three or four years' duration, while the *crocea* is only annual, all our attempts to carry it through the winter having proved unavailing. Dr. Lindley remarks that the *compacta* "seems to stand in much the same relation to *C. californica* and *crocea* as those to each other; that is to say, if they are distinct, so is this: but if they are varieties of only one species, this must be reduced to that species also."

The flower is similar to the others, only varying in color, the base of the petals being of a deep orange, shaded into a pale yellow towards the edges: its habit is densely dwarf. Nothing is said of its native place, but it is probably from California. (*Bot. Reg.*, April.)

*C. crócea*, from seeds self sown, is now in bloom in our garden: it produces seed in much greater abundance, grows more freely, and flowers far more profusely than the *C. californica*, and will soon take the place of the latter, to its almost utter exclusion. Seeds planted early this month will bloom freely in September.

*Papàver orientàle* and *bracteàtum* are now (June 15,) splendidly in flower; they are among the showiest perennials: we have blooms which will measure ten inches in diameter.

### *Legumindcæ.*

In this order we have several fine perennial lupins in flower. *L. polyphyllus* and *p. álba* are both splendid, particularly the former, upon one single plant of which there are now fully expanded eight or ten spikes of flowers, four feet high, with upwards of a hundred and fifty corols on each. It is one of the finest ornaments of the garden at this season, and no collection should be without it. The spikes of blooms far surpass those of the finest hyacinths, to which they have not an unapt resemblance at a short distance; their many-parted leaves, nearly erect upon the footstalks, have a light and elegant appearance, contrasting beautifully with the tall, erect, and graceful spikes of blossoms. *L. polyphyllus* var. *álba* is less showy than its parent, but is, nevertheless, a fine plant. *L. Hillenianus* is also in bloom; it is an humble species, with dense spikes, about a foot high, of very deep blue flowers, and is a charming plant. Another species, more robust than the last, but less so than the *polyphyllus*, is likewise flowering; the specific name is lost: the flowers, which are two-colored, pale yellow and blue, are rather thinly set upon the spikes, and not very numerous. All the lupins like a light, sandy soil, in which they flourish in great perfection: in one retentive of moisture they invariably grow weak, and, finally, disappear. There are a number of perennial species, all highly deserving of cultivation.

### *Geranidcæ.*

*Geraniums*.—At Mr. Wilder's Dennis's Perfection has been in flower, and is, we presume, yet in full splendor. It is a fine variety, and has been by the grower of it styled the "Prince of Geraniums:" still, only to the eye of the connoisseur of this tribe, it has not the striking appearance of many common sorts. In the catalogue of Messrs. Dennis & Co., for 1837, we learn that this variety has given general satisfaction to the lovers of this

family in England: there has also been produced from it "a numerous progeny of highly finished individuals, all partaking of the fine habit of their parent, but vying in some new beauty of superior *shape, color, or size of bloom.*" Indeed, like the dahlia, there seems to be no end to the new varieties, and perfection in the flower seems to be as far distant as it was when Sweet first commenced his elegant work on the tribe. Mr. Widnall, the celebrated dahlia grower, has raised a seedling from Dennis's Perfection, which far surpasses the latter. Numerous other seedlings have been raised, the past two years, of great merit: we copy the following description of three new ones from an advertising sheet for this year, raised by Mr. Rendle, a nurseryman.

*Rendle's Alarm.*—A seedling of 1835, a most beautiful form, deeper crimson ground than Perfection, a most beautiful dark round spot on the upper petals, with a splendid white centre.

*Criterion.*—This flower is of a splendid shape, large in the way of the Gem, but a much brighter color, with a most beautiful white centre. The plant is of an excellent habit, and a most profuse bloomer.

*Helen McGregor.*—A splendid pure white, flowers very large and flat, and forms a complete circle; shows its bloom above the foliage, in a most beautiful and novel style, a very dark round spot on the upper petals. This is not equalled by any white flower in cultivation.

No doubt these varieties will find their way into the collections of this country, in a year or two, through the different nurserymen.

### *Violææ.*

*Pansies.*—We have lately seen, at Mr. Walker's, some fine new seedlings, which equal, if not excel, both as regards size and color, any that he has heretofore produced. Those who have seen his Othello will think this is high praise; but it is no more than truth. One to which he has given the rather inelegant cognomen of Hecate, is very remarkable for its size, its firmness of petal, and its hemispherical outline—properties which every good flower should possess, to entitle it to a name. The color of the two upper petals is a porcelain blue; the lower ones light purple towards the edges, and shaded into a yellow, which increases in brilliancy towards the eye: the habit of the plant is good. Another, called the Queen of violets, is a charming one, not, however, of the largest size. We found Othello, Clio, Village maid, Adelaide, and some others, beautifully in bloom; the first of these with some remarkably large flowers: this is a first-rate variety, possessing most of the good properties of a pansy for producing seed, by impregnation, from which to raise new kinds.



Mr. Walker has a large bed of plants just up, from which he expects to raise a few splendid varieties; amateurs may rest assured that he will name nothing that is not as good as his Othello. All lovers of this brilliant flower should call and look at his seedlings.

## DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

### *Gesneraceæ.*

#### **GESNERA**

*lateritia* Lindl. Brick-red Gesnera. A stove herbaceous plant; growing from one to two feet high; with scarlet flowers; appearing in June; cultivated in peat and loam; a native of Brazil. Bot. Reg., 1950.

“Most nearly allied to *G. fauciàlis*, (see vol. II., p. 25,) from which it differs in the leaves being more round, the flowers smaller, the flower-stalks longer, the base of the upper lip of the corolla as wide as the apex, the narrow orifice of the tube, and the truncated middle lobe of the lower lip.” It belongs to the bulbous species of the genus. The flowers are scarlet, and very showy, from six to ten appearing on the terminal racemes, the lower ones axillary; the corolla is tomentose, the lip long and emarginate. It is a native of Brazil, from whence it was introduced by the London Horticultural Society, in whose collection it flowered in 1834. (*Bot. Reg.*, April.)

Few of the Gesneras are cultivated in the collections of plants in this country: they are extremely beautiful, and deserve more attention at the hands of the amateur.

### *Schrophulariæ*.

#### **PENTSTEMON**

*breviflorus* Lindl. Short-flowered Pentstemon. A perennial herbaceous plant; growing two feet high; with white and purple flowers; appearing in September; increased by cuttings; cultivated in peat and loam; a native of California; introduced in 1835. Bot. Reg., 1946.

Plants of this species were raised from seeds picked from the dried specimens sent by Mr. Douglas to the London Horticultural Society. In its native country it “appears to be a stout branchy plant, bearing a profusion of small white and purple flowers.” In its cultivated state, however, it is so tender and difficult to manage, that its native beauty is but partially developed. It appears to be hardy, but though it grows tolerably freely during summer, it perishes during the winter; and only two weak and puny specimens are all that now remain. The stem is erect, the leaves ovate-lanceolate: the flowers appear in fastigate panicles, and are, from their number, very ornamental. A strong plant, covered with blossoms, must be a very interesting object. (*Bot. Reg.*, April.)

Several varieties of calceolarias are now in bloom at Mr. Towne's, some of which are very splendid. The var. *Grand Sultan* is now in flower in most of the collections around Boston. Mr. Carter, of the Botanic Garden, has raised a new, and, we have been informed, elegant seedling. Mr. Wilder had a num-

ber of seedling plants last winter, but whether they have yet flowered or not, we have not learnt.

### *Labiæ.*

*Gardoquia Hookeri*.—Seeing you have referred to Mr. Paxton's figure of this plant, and as it is so great a favorite, I beg leave to correct several misrepresentations respecting its locality, &c. At the same time they, I am well aware, are not attributable to Mr. Paxton, as I know they originated in *Sweet's Flower Garden*, and when last in England I wrote Mr. David Don on the subject; but having been since in the West Indies, and seeing them copied in the *Magazine of Botany*, I have no knowledge whether they were attended to, but, from the latter cause, I am led to infer otherwise.

The *Gardoquia* was first discovered by Lewis Le Conte, Esq., in the month of September, 1830, on the banks of the *Altamaha* River. This gentleman, to whom England is at the present indebted for many of its choicest floral gems, which through me were there introduced, not only informed me of the locality of this plant, but took a three days' journey to show it me. I took the plants with me to England, in the spring of 1832, left them with Mr. Skirving, of Liverpool, as they were sickly, to be transmitted to Mr. Geo. Charlwood, of London, *entire*. Sometime afterwards *some* were sent. My directions to Mr. Charlwood were, that should the plant prove a new genus, to call it *Lecóntia*, but if only a new species, to give that gentleman the credit which he so justly merited, by giving its specific name, *Lecóntii*;—judge then, of my astonishment, in 1835, on my return to England, to find this honor conferred on Dr. Hooker. Such is the history of this pretty shrub. It grows on a sandy hill, and, as far as I know its locality, is confined to that spot.

You say Mr. Buist imported this plant from London,—both Mr. Buist and myself know how *he became possessed* of the plant, or rather, I should say, plants; but as I should be sorry to attempt to make your work the medium of a private controversy, I shall only add, Mr. B. obtained his plant in Philadelphia. No plants, whatever seeds may, have been imported from England.—*Yours, respectfully, Alexander Gordon, (Botanical Collector,) Philadelphia, June 20, 1837.*

### MONOCOTYLEDONOUS PLANTS.

#### *Amaryllidæ.*

##### PANCRA'TIUM

*calathinum* Cup-flowered Sea-daffodil. A stove bulb; growing from two to three and a half feet high; with white flowers; appearing in summer; a native of Brazil. Pax. Mag. Bot., Vol. III.

A species long known in the gardens of Britain, but seldom met with in collections. It is a very beautiful plant, with a

scape, about two feet high, terminated with two or more large, clear white, delightfully fragrant flowers, which remain in perfection an "amazing length of time." The specimen from which the drawing was taken was furnished by Mr. Campbell, of the Manchester Botanic Garden. It is cultivated in the same manner as the other species. (*Pax. Mag. Bot.*, April.)

*Alstræmerias*.—A number of species of this beautiful family are now blooming in various collections in the vicinity of Boston. In the collection of J. W. Boot, Esq., *A. pulchella* (Hookeri Swt.), *psittacina*, *Flôs Martini*, and a species, of which the name is lost, are in full flower. The St. Martin's flower is the most beautiful, in our opinion, of the whole. We have *Pelegrina*, raised from seeds, *psittacina*, and a species, which we suppose to be *aurantiaca*, in bloom: the latter is very handsome, with bright orange flowers, elegantly striped, on the upper sepals, with a deeper tint.

### *Orchidææ.*

#### RENANTHERA

*coccinea* Scarlet-flowered Air-plant. A stove epiphyte; growing twelve feet high; with scarlet flowers; appearing in October; a native of China. *Pax. Mag. Bot.*, Vol. III.

For a long time previous to the introduction of this plant into Europe, its beauty was partially known, both from the reports of various travellers in China, and from a work of Loureiro, a missionary, published in 1790: the London Horticultural Society also possessed a drawing of it; but it was not until it first produced its flowers in Britain, at Claremont, in the garden of Prince Leopold, that its surpassing splendor became generally known to European cultivators. The Chinese cultivate it in their houses, suspended from the ceiling in a basket, or some other proper utensil, from whence its gorgeous flowers hang gracefully, displaying a mass of bloom which has often been said to "surpass almost every other vegetable product known."

From the reports of its beauty great exertions were made to introduce the plants into England. It was soon procured. At various times it was received, and always recognized, from its peculiar long leafy stems, veinless leaves, and fleshy tortuous roots. A long time elapsed after the plants had become generally introduced into the various collections, before any correct idea could be formed of the precise nature of its inflorescence, and all efforts to make the plants produce bloom seem to have been for a long time entirely fruitless, until Mr. Fairburn, (then gardener to Prince Leopold,) from an idea that the plants had been generally grown in too dry an atmosphere, tried the experiment of enveloping the stems with moss, and keeping it constantly moist, exposing the plants as much as possible to the sun; the result was the development of a panicle of flowers, two and

a half foot long, which opened at Claremont in the month of October, 1827, from which a drawing was taken for the *Bot. Reg.*, t. 1131. Mr. Paxton thinks, however, that "a mistake has arisen as to the real cause of its flowering; it having, in collections where a great moisture is continually kept up, rarely or never flowered." At Wentworth, under the management of Mr. Cooper, it has flowered several successive years: this experienced cultivator never washes his plants overhead, nor keeps up a very moist heat. Mr. Paxton details his method of cultivating the plant from which the present drawing was taken, which is as follows:—"About April, 1836, we had a plant put into a small house appropriated to the growth of a few stove plants, in which the heat varied from 65° to 70°: it was kept free from moisture, except what arose from watering and occasionally syringing. Here the whole of the plant was exposed to the direct rays of the sun, and, as might be expected, this treatment caused the leaves slightly to shrivel, as well as turn a little yellow, but by occasionally washing them over in the afternoon, with the syringe, the plant did not suffer much; after it had been in this exposed situation for three months, we had the satisfaction of seeing two fine spikes of flowers pushing forth, one of which came to maturity. We have but little doubt, if proper attention is paid to placing the plant near the glass, and without the use of shade, that a flower-bud will soon make its appearance on a well established plant: it is necessary here to observe, that the plant ought to be six or eight feet high before this experiment is attempted."

The plant may be described as having a long, round, leafy stem, sometimes branched, sending out many long fleshy tortuous roots, which cling firmly to a wall, the stem of a tree, or any other object within its reach, and which take hold so firmly as to be separated only with injury. The leaves are disposed in two uniform opposite rows, of a dark green color. The flowers are very numerous, and produced on a loose panicle, the stalks of which are hard and round. The sepals and petals are of a pale scarlet, obscurely blotched with a deeper tint. It is a native of Cochín China, where it grows on the branches of trees. (*Pax. Mag. Bot.*, April.)

Mr. Wilder possesses a plant of the *Renanthera coccinea*, which is yet, however, quite small; but as it is a rapid grower when duly supplied with heat and moisture, it will probably ere long display its splendid blossoms.

*Oncidium flexuosum*, in the collection of Mr. Wilder, has been, the past month, elegantly in bloom. A panicle or spike was thrown out, twenty-seven inches in length, which was covered with upwards of ninety flowers; this is, we believe, the first plant of this species which has ever flowered in the country.

**LÆLIA**

*anceps* var. *Barkeriana* Lindl. Mr. Barker's variety. A stove epiphyte; growing a foot high; with lilac flowers; appearing in December; a native of Mexico. Bot. Reg., 1947.

"In general appearance, like *Lælia anceps*." A beautiful plant, with delicate lilac sepals and petals, the lip marked, on the inner side, with deep rich purplish red, which has a very striking appearance. From one to three flowers are produced on a spike, a foot high. It was introduced from Mexico by Messrs. Lowe & Co., and flowered in the rich collection of George Barker, Esq., of Birmingham. It is supposed to be common in some parts of Mexico; cultivated in the same manner as the cattleyas. (*Bot. Reg.*, April.)

**TRICHOCENTRUM** (from *trichos*, a hair, and *kentron*, either a spec or a centre; but the applicability of the mode is not apparent, nor is it explained by its author, Mr. Pöppig.)

*fascium* Lindl. Brown-flowered *Trichocentrum*. A stove epiphyte; growing a few inches high; with white and crimson flowers; appearing in July; a native of Mexico. Bot. Reg., 1951.

This is a very pretty plant, though less showy than many of the epiphytes: the flowers appear on short pendulous stems: the sepals are of a greenish red, and the labellum of a pure white, touched with deep crimson at the base. It was imported by Knight, of the King's Road, in whose nursery it flowered in July last. It is stated to be "by no means of difficult cultivation." (*Bot. Reg.*, April.)

*Monachanthi et Myanthes cristata*.—Dr. Lindley gives, under these names, a figure of one of the most singular productions of nature. He states that "in November, 1836, His Grace the Duke of Devonshire was so kind as to put into my hands the extraordinary flower represented in the accompanying plate, which may be regarded as one of the greatest curiosities that our gardens ever produced. Accustomed, as botanists now are, to the freaks and masqueradings of nature, and to the strangest departure from all rules, at every step among orchidaceous plants, there is certainly nothing upon record to be for a moment compared with the case before us. It is that of a plant of *Myanthus cristatus* changing into a *Monachanthus*, related to *Monachanthus viridis*, and combining, in its own proper person, no fewer than three supposed genera, *Myanthus*, *Monachanthus*, and *Catasetum*."

"I doubt very much whether any one would have believed in the possibility of such transmutations upon weaker evidence than that I am about to produce. At least, for my own part, I am much in the position of the person who, upon being assured of the truth of an improbable story, exclaimed, 'Why, sir, I would not believe it if I saw it myself!' I am the first botanist who ever witnessed any of these changes: my observation was put upon record several years ago, and yet, when I read it again, in 1833, I really believed I must have been mistaken, and doubted my own positive testimony. In this very Botanical Register,

vol. XII., fol. 966, in April, 1826, is the following note under *Catasetum cristatum*:—

“ ‘The importance of the peculiarity which exists in the labellum (namely, its flattened, or furzed and crested state,) is manifested in a singular manner by a curious monster of this plant, which we have observed on an individual in the Horticultural Society’s Garden. Among flowers of the ordinary structure two or three others were observed, in which the labellum was precisely of the same nature as that of *Catasetum tridentatum*; that is to say, destitute of the crested appendage, and perfectly galeate and naked.’

“ This, I repeat, appeared to me so extraordinary a statement, especially as after seven years it had never been corroborated by any other case of the kind, that I concluded I must have made some mistake, and I accordingly formed the genus *Myanthus* out of a species nearly allied to the very *Catasetum cristatum*, which, in 1826, I had seen sporting back to *C. tridentatum*.

“ Not content with this, I added the genus *Monachanthus*, distinguishing it from *Catasetum*, by the want of cirrhi on its column, and by its penanth being turned back; and when the original species, *M. viridis*, was sent to me from Wentworth, previously to the publication in this work, fol. 1752, I felt no doubt of its being an entirely distinct plant. Even when Lord Fitzwilliam assured me that it was beyond all doubt an accidental sport of *Catasetum tridentatum*, I still adhered to my idea that an imported plant of *Monachanthus viridis* had been accidentally taken for the latter common species. Nor do I think that, as a botanist, I was to be blamed for these errors; the genera being founded upon characters which were apparently important, and which most assuredly no one could *a priori* have suspected could pass into each other, in the manner that has now been seen. If, however, it should be thought that I ought to have been aware of such metamorphoses, I at least have lost no time in acknowledging the mistakes, and putting others on their guard against them for the future.”

After describing the way in which they pass into each other, which would not be understood very well without the accompanying plate, Dr. Lindley states that “the necessary consequence is, that the supposed genera *Myanthus* and *Monachanthus* must be restored to *Catasetum*, and I have no doubt now, although no proof has been seen of it, that *Mormodes* must share the same fate. But which of the species have their masks on, and which shew their real faces, I certainly will not at present presume to guess.”

Mr. Schomburgh, of Demarara, has lately found a specimen of *Monachanthus*, sporting to a crested *Myanthus*. Such singular deviations from nature we deem it our duty to record, for the benefit of American botanists and amateurs who may not all possess this work. (*Bot. Reg.*, April.)

*Asphodeliaceæ.*

*Gladiolus* var. *pudibundus*.—This splendid variety, noticed in our vol. II. p. 63, has been, and we presume still is, displaying its exquisite blossoms at Mr. Wilder's, who informs us that it is a most valuable plant.

ART. V. *Calls at Gardens and Nurseries.*

*Mr. Walker's Tulip-show*.—This show, which we adverted to in our last, took place at Mr. Walker's garden the first week in June, and was one of the most gorgeous displays of this famous flower which we have ever had the pleasure of observing. The tulip is but little cultivated in this country, particularly the finer varieties, and there are few collections which can claim the credit of growing such as are considered of value by the amateur or connoisseur. In this instance, however, Mr. Walker may be truly said to lead in the "fancy." His bed has been considered for several years as one of the best in the vicinity of Boston, and the additions which he has made to it the past season have been of such fine kinds as to place it, probably, before any other in the country. When we saw it the finest varieties had not fully expanded, but such as were we much admired.

The bed contained seven hundred bulbs, and upwards of two hundred varieties; it was arranged with seven rows in width and one hundred in length: the tallest growing sorts were placed in the centre row, and the lowest at the outer edges. The whole presented a blaze of splendor and varied colors unknown in any other flower. What we much admired was Mr. Walker's arrangement for shading the blooms; this consisted of a strong but light frame-work, about six feet high, at the sides and ends, and surmounted by a ridge-pole; to this was attached a canvass, which could be rolled up or let down, as the state of the weather permitted; when down it reached about half way from the frame to the ground; from this distance to the ground was a light lattice fence, painted green; at each end was a sliding canvass door. The whole could thus be protected from the wind and rain. It is one of the neatest structures of the kind we have ever seen, and Mr. Walker must have been at great expense in fitting up the same.

It would occupy too much space to enumerate all the fine kinds, but the following are a few which we thought worthy a place in every first-rate collection:—*Bibloemens*: Incomparable Diana, Francis Primus, Holmes's King, Rose vesta, Marie Louise, Strong's rose, gloria alborum, Ambassador d'Holland, La Sultan, Neal's Jefferson, and Louis XVI. *Bizarres*: Capt. Marryatt, Sir F. Burdett, and gloria mundi. Neal's Jefferson is a very superb bibloemen, broke in New York, by Mr. Neal: it is a middle row bulb, and its growth vigorous. Louis XVI. was not fully out when we saw it, but it was sufficiently so to convince us that it yet retains its high character.

Mr. Walker has several seedlings which have broke this year, but there are no remarkable ones among them. The plants were very well grown, and the colors run much less than in any collection we have before seen. On the whole it was a most gratifying display, and we hope the remuneration which Mr. Walker has received from the public has been such as will induce him to continue his exhibition next year.—*Cond.*

## REVIEWS.

ART. I. *The Young Gardener's Assistant, containing a Catalogue of Garden and Flower Seeds, with practical directions under each head for the cultivation of Culinary Vegetables and Flowers. Also, directions for cultivating Fruit Trees, the Grape Vine, &c.; to which is added a Calendar, showing the work necessary to be done in the various departments of Gardening, in every month of the year.* Seventh edition, improved. By THOMAS BRIDGEMAN. 1 vol. 12mo. 360 pages. New York, 1837.

WHOEVER has watched the rapid strides which horticulture has made in this country within a few years, and felt interested in its future prospects, must have noticed the little attention which has been paid to the department generally termed kitchen gardening: while new fruits and new flowers and flowering plants have been eagerly sought after, and introduced only at great expense, the products of the kitchen garden have been sadly neglected. As important as the various articles are, and still more important as are the new varieties which are yearly produced, the market gardens of this country are greatly deficient in many of the best. The old kinds are still grown, and, from the effects of prejudice, in many instances, new varieties are discarded, and not allowed a fair trial, to ascertain their respective merits.

In the cultivation of vegetables the American gardener has yet much to learn—much to acquire before he will be able to grow plants to any thing like perfection; and as regards the quantity of vegetables to be produced from a given quantity of ground, with all his calculating powers, natural to a great portion of our countrymen, he will have to practice gardening many years before he will gather as numerous crops as his transatlantic neighbors. The proper rotation of crops, too, a subject of the first importance, in market gardening, is but little understood, and much less carried into practice. A judicious adaptation of manures to particular soils, and the art of improving poor and unproductive ones, are, also, each, subjects which have not sufficiently engaged the attention of the market gardener.

But if we take a single glance at the progress of gardening in this country, we shall see to what causes these defects are to be attributed. The principal of them has been the want of correct and useful information, gathered from the practice of our own scientific men, upon the various departments, and the other the wide diffusion of works, for the want of something better,



compiled and arranged wholly from English publications, without paying the least attention to the great difference between the climates of the two countries: these compilations, too, by individuals wholly uninformed upon the subject, have been rendered still more objectionable; and, passing often under the name of original information, have been the guide of many cultivators, who have found out, too late, that a strict adherence to the rules frequently laid down has only ended in disappointment. These, with an obstinate prejudice to practise gardening empirically, to mark out no new track which reason may dictate, or the alteration of climate, or change of soil or situation require, and an utter dislike to *all* book gardening whatever, have been the principal causes of so limited a knowledge upon the subject.

It was at this period, when the number of farming and gardening periodicals in the country was very limited, that this work, the title of which we have placed at the head of this article, made its appearance. The author was well known as possessing considerable knowledge upon the subject, having practised market gardening upwards of seventeen years. The ready sale of six editions of the work, and its passage to a seventh, are good evidences that the information he has given to the public has been of such a kind as to render it an excellent guide both to the market gardener, the amateur, and the gentleman. It is so long since it first made its appearance that it may seem altogether superfluous to notice it at this time; but as this edition contains many additions and improvements, and as many of our readers may have never seen it, we are glad to avail ourselves of an opportunity to make some extracts.

Commencing the volume are some "General Remarks on the management of the Kitchen Garden:" these embrace some excellent hints, and the following we commend to the attention of the gardener.

"Previous to entering on the work of a garden, the gardener should lay down rules for his future government. In order to this, he should provide himself with a blank book. In this he should first lay out a plan of his garden, allotting a place for all the different kinds of vegetables he intends to cultivate. As he proceeds in the business of planting his grounds, if he were to keep an account of every thing he does relative to his garden, he would soon obtain some knowledge of the art. This the writer has done for the last seventeen years, and he flatters himself that a publication of the results of his practice will be interesting and useful to his readers.

"If gardeners were to make it a rule to record the dates and particulars of their transactions relative to tillage, planting, &c., they would know when to expect their seeds to come up, and how to regulate their crops for succession; and, when it is considered that plants of the *Brassica*, or cabbage tribe, are apt to get infected at the roots, if too frequently planted in the same ground, and that a rotation of crops in general is beneficial, it will appear evident that a complete register of every thing relative to culture is essential to the well-being of a garden."

There are some gardeners, and many farmers, who believe that seeds, unless planted at just such a time, will not flourish or arrive at maturity in season. Those who have this mistaken idea should read the following attentively.

"Some gardeners, as well as some writers, recommend certain fixed days for sowing and planting particular kinds of seeds; I think it necessary to guard my readers from being misled. The failure of crops may be often attributed to the observance of certain days for sowing. If some kinds of seeds be sown when the ground is wet and cold, they will become chilled in the ground, and seldom vegetate. If they be sown in very dry weather, the germinative parts of the seed may become injured by the burning rays of the sun, or the young plants may get devoured by insects as fast as they come up."

Rotation of crops, the author thinks, and rightly, is a most important point, and should be particularly attended to. "Virgil," he says, "who was a true philosopher, as well as a poet, very justly observes, that 'the true repose of the earth is a change of its productions.'"

"It is a curious fact, that a plant may be killed by the poison which it has itself secreted, as a viper may be stung to death by its own venom. Hence it has been very generally noticed, that the soil in which some particular vegetables have grown, and into which they have discharged the excretions of their roots, is rendered noxious to the prosperity of plants of the same or allied species, though it be quite adapted to the growth and support of other distinct species of vegetables.

"It is proved by experience, that fall spinach is an excellent preparative for beets, carrots, radishes, salsify, and all other tap, as well as tuberous-rooted, vegetables.

"Celery, or potatoes, constitute a suitable preparative for cabbage, cauliflower, and all other plants of the Brassica tribe; also artichokes, asparagus, lettuce, and onions, provided that such ground be well situated, which is a circumstance always to be duly considered in laying out a garden.

"Lands that have long lain in pasture, are, for the first three or four years after being tilled, superior for cabbages, turnips, potatoes, &c., and afterwards for culinary vegetables in general.

"The following rules are subjoined for further government:

"Fibrous-rooted plants may be alternated with tap, or tuberous-rooted, and *vice versa*.

"Plants which produce luxuriant tops, so as to shade the land, to be succeeded by such as yield small tops or narrow leaves.

"Plants which during their growth require the operation of stirring the earth, to precede such as do not admit of such culture.

"Ground which has been occupied by artichokes, asparagus, rhubarb, sea kale, or such other crops as remain long on a given spot, should be subjected to a regular rotation of crops, for at least as long a period as it remained under such permanent crops. Hence, in all gardens judiciously managed, the strawberry bed is changed every three or four years, till it has gone the circuit of all the compartments; and asparagus beds, &c. should be renewed on the same principle, as often as they fail to produce luxuriantly. Indeed, no two crops should be allowed to ripen their seeds in succession in the same soil, if it can be avoided, because, if it be not exhausted by such crops, weeds will accumulate more than on beds frequently cultivated."

There are gardeners and farmers who believe that some vegetables will only flourish upon the same spot of ground for years; that a change of situation is injurious rather than beneficial. We have ourselves known onions, in more than one instance, to be cropped from one bed for twelve years in succession, from a belief that they could not be produced upon another piece of ground equally as large and fine. Beets, carrots and parsnips, too, are grown upon the same spot for many successive years. It is a rule, which appears to have been adopted many years, for the owner of a garden to lay out a piece of ground into beds for these three varieties of vegetables; and as long as they continue to be cultivated they are planted upon the same spot. The result is, that after a length of time, the product is greatly lessened, and the quality much inferior. It is also a custom in small gardens, cultivated, by individuals, for raising their own vegetables, to appropriate beds for every kind; and to continue to crop these with the same varieties for an indefinite period: finally the land, in the idea of the cultivator, is "worn out," and is of no further use; he must either select a new spot, or buy his vegetables of the regular market gardener. Farmers practising upon the same rule, instead of tilling one spot of ground as it should be, continually select "new land," as they term it, until a farm of twenty or thirty acres has been all ploughed over. The great loss of time in preparing the new ground, and the evident waste of manure, is not taken into consideration, but the same system continues to be pursued. The valuable information which is, however, circulating, through some of the agricultural periodicals, will eventually awaken the attention of our farmers to the subject, and lead to a proper and natural mode of cropping their ground.

The preliminary observations on the fruit garden and orchard are very good, and Mr. Bridgeman's remarks respecting the use of ashes, both for the destruction of insects and the dressing of land, deserves the attention of every gardener. We have often wondered why this article was not used in our gardens to a far greater extent than it is at present: it is well known that the farmers of Long Island, one of the most fertile spots in the country, cover their land with it; it is carried away from Boston, and, we presume, from other cities, cargo after cargo, and a high price is paid for it. We quote Mr. Bridgeman's observations on this point.

"Although our limits will not allow of a further description of the various sorts of insects which injure our gardens, and frequently destroy the fruit of our labor, I cannot forbear directing the attention of our citizens to the importance of saving all kinds of ashes. If all agriculturists and horticulturists were to offer an inducement to the inhabitants of large cities, to save their ashes in a dry state, they would be supplied not only with a valuable manure, but an antidote for many kinds of in-

sects; and our citizens would be at a less risk from fire, by having a brick vault on the premises, for safe keeping them. In England, a private dwelling is not considered complete without an ash-vault; and a good farmer would dispense with his barn, rather than be destitute of an ash-house. I have known farmers to supply the cottagers with as much peat as they could burn, on condition of their saving them the ashes; and there are some that will keep men under pay throughout the year, burning peat for the same purpose; and any thing that has passed the fire is so valuable, that a chimney-sweep will frequently clean chimneys for the sake of the soot, which is conveyed miles into the country, and sold at a price sufficient to reward the collectors, besides paying all expenses; even the housekeeper's ashes in cities is a marketable article at all times; at from ten to twenty-five cents per bushel, when kept dry and clean, and a guinea a load, was formerly the common price in the villages of Berkshire and Hampshire.

"While on this subject, I would urge the importance of a spring dressing of ashes. If cultivators were to prepare turfs from tanners' bark, peat earth, coal dust mixed with clay, cow dung, &c., and get them dried in the summer season, these, by being preserved through the winter, may be burned around fruit orchards, while the trees are in blossom, and, if the fires are properly managed, a smoke may be kept up, by heaping on damp litter every night; this will prove pernicious to such insects as may reside in the trees, and the ashes being spread on the ground, will serve as a means for the destruction of others. An orchard thus managed every year will need no other manure. The smoking should be effected first on one side of the plantation, and afterwards on the other, or heaps may be prepared in different parts of the orchard, and fire applied, according as the wind may serve, to carry the smoke where it is most necessary. I know a gardener in the neighborhood of New York, who saved his plums and nectarines by burning salt hay, after its having been used as a covering for his spinach; and I have no hesitation in recommending it as an excellent remedy for securing fruit trees from insects, especially if some coarse tobacco could be procured to add to it. The damper the materials are, in moderation, the more smoke they will create; and if a little tar, pitch, sulphur, or other pernicious combustible, be sprinkled amongst them, it will be beneficial. This subject appears to me of the utmost consequence to the farmer, as well as to the community at large.

"Now I would ask, how is it that ashes are not as valuable to the farmer here, as they are in Europe? The extreme heat of the summers must certainly engender insects in equal if not greater proportions; and as respects manure, it must be scarcer in some parts of this extensive country, than it is in the densely populated countries of Europe. Perhaps some may answer, that ashes are already used by our cultivators to a considerable extent; but I would remind such, that from the circumstance of their being mixed up with other manures, and exposed to all sorts of weather, (as in our city,) they lose their virtue, so that a load may not be worth more than a bushel would be, if kept dry and clean. The farmers of Europe consider peat ashes of more value than any others, and I am persuaded, that could they be fairly tested by some of our best cultivators, great good may result to the community. If the farmers of England can afford to keep men under pay, perpetually burning peat for the sake of the ashes, it is natural to suppose that the poor of our community may be placed in easier circumstances as respects the article of fuel. Thousands of acres of land are to be found in the States of New York and New Jersey, and within a few miles of this city, which abound with peat earth; and the owners of

such have already begun to explore their treasures of this description. Good peat is now to be had in the city at the low price of eight cents per bushel, or three dollars per chaldron. It burns well in all sorts of stoves and grates, whether made for wood or coal, and also on the hearth; and if the ashes are not used to any better purposes than other ashes have usually been, it is the cheapest fuel known. I am persuaded that this subject is worthy of serious consideration, and if the editors of the different papers would arouse the public attention, so as to enlist some of our most active citizens to a consideration of the subject, incalculable good may result to the community at large."

The descriptive lists of fruits, are tolerably complete, and contain a very good selection for a garden; some of the lists were furnished by different nurserymen, and therefore contain some mistakes; we may, however, suppose them more free from such than many others, as Mr. Bridgeman states that his "lists of about three hundred varieties of the various sorts of fruit will embrace what has been deemed by some as different varieties, perhaps to the number of a thousand."

The work is written in plain language, easily to be understood by the young beginner in gardening, who will find it a great help, until he is able to read and understand the more comprehensive works; and its value even to the partly experienced person is by no means of an ordinary character. It is adapted to our climate, and, unlike compilations from English works, the novice is not led into disappointment by following the rules as laid down, as he generally is, when following the advice of the latter. We repeat, that as far as the book pretends, it is worth all others of a similar character that have ever been published in this country, and its cheapness should place it in the hands of all new beginners. It appears with many alterations, additions and improvements, and we hope Mr. Bridgeman will reap considerable benefit from the labors of his pen. America has as yet produced but few agricultural or horticultural writers, compared with the number of her literary men; but we attribute this to the limited pursuit of the science, at the present moment, by men of talents; when it becomes as general as it has in England we may look for as much original information, from our own cultivators, as now emanates from the pens of English gardeners and amateurs.

## MISCELLANEOUS INTELLIGENCE.

### ART. I. *General Notices.*

*Conservatory.*—The following article on this subject is from the *Penny Encyclopedia*, Vol. VII., just published, and bears internal evi-

dence of being written by Dr. Lindley. The scientific gardener it will lead to very interesting and useful reflections: though to the mere practical man it will be, to use the concluding expression of the article, "only a waste of words." "The names given to the garden buildings employed for preserving plants in an artificial climate are applied with so little precision, that it is almost a matter of indifference which to select for the purpose of explaining the principles that ought to be observed in the construction of such houses. We shall, therefore, reserve for the article green-house what we have to say upon that head, and briefly dismiss the others as their names occur. In illustration of this remark, we may observe that the term conservatory, which, as its meaning shows, was originally intended for buildings in which plants were preserved during winter, has come to be used, finally, for glass houses, in which plants are cultivated by growing them in the open border, and, subsequently, for all such glazed buildings whatever. A conservatory, properly so called, is a brick building heated by artificial means, having its whole southern part inclosed by large glazed sashes, which may be opened or shut at pleasure. Its floor is generally of straw, and a part of it is occupied by a stage, on which plants in pots can be placed. One of these buildings, but in a ruinous state, may be seen in the Physic Garden, at Chelsea, [a specimen of this style may be seen at the Linnæan Garden and Nurseries of the Messrs. Prince, at Flushing, L. I., and also at one or two private residences in the vicinity of New York.—*Cond.*] others are not uncommon in gardens that were laid out forty or fifty years ago; but they are fast falling into neglect or disuse, and, in our opinion, deservedly. Such a conservatory was intended to preserve, during the winter, orange trees, myrtles, American aloes, and similar plants, which, during summer, will flourish in the open air, but which require, in winter, to be protected against the inclemency, or, to speak more exactly, against the cold and wet, of the English climate. Such plants are torpid during winter; their rest begins with that of our trees; and it is easy to prevent a renewal of their growth at too early a time. To preserve against too much wet, and from severe cold, especially in the spring, is all that is requisite for them; and these objects the old conservatory answered perfectly well. It had, moreover, the advantages of being spacious, without being excessively costly; of being easily heated; and of requiring the smallest possible amount of labor for the plants in it. Persons, however, gradually forgetting the original object of the conservatory, added to it numerous species, requiring a very different treatment in winter from those it was contrived for; and, what was far worse, they attempted, by humidity and high temperature, to keep the plants in a growing state all the winter. The necessary consequence of this was, that those plants which formerly succeeded in the conservatory became unhealthy; the new comers disappointed the expectations of their cultivators; and the building fell into discredit. The reason of this is sufficiently obvious: plants, when in a growing state, require an abundant supply of light. A conservatory is particularly ill calculated, on account of its solid roof and sides, for the admission of light; and, consequently, a conservatory is not suitable for plants in a growing state. But plants, when torpid, as in the winter season, require a very moderate supply of light, and this a conservatory is sufficiently calculated to admit.

"A house of this kind is best suited for gardens of considerable extent, where a large number of plants is required, during the summer, for the ornament of the flower garden and shrubbery. Under such circumstances, we strongly recommend the erection of conservatories, as the cheapest, the most efficient, and the most ornamental mode of preserving in a healthy state, during winter, not only oranges, myrtles, and

sensitive plants, but, in general, all the species which are natives of countries that, without experiencing severe frost, are cold enough, during winter, to suspend the vital energies of vegetation. It will be perfectly within the gardener's power to keep the earth in which conservatory plants grow sufficiently damp, during the winter, to enable them to accumulate, by the return of spring, an abundant supply of new sap; and this is all that he need be particularly reminded of, if he understand his business scientifically: if he does not, advice to him would be only a waste of words."—(*Penny Cyc.*, Art. Conservatory, copied into *Gard. Mag.*)

*Destruction of Insects by Manual Labor.*—How often does one enter a garden with the cabbages all dissected to shreds by caterpillars, and the owner inquiring of every one for some recondite mode of killing them; when, if he would offer to two or three lads a penny a quart for all they could pick off, his cabbages would be cleared of every assailant in a few hours; and in the same way he might have the aphides crushed off any plant particularly valuable, and the caterpillars collected from the gooseberry bushes, by shaking them suddenly over two or three newspapers laid round them. Even on a large scale it might be worth trying, if it would not answer, to employ boys to brush off, with some light kind of whisk, the aphides from hops, when extensively attacked, on sheets spread below, when they could be easily collected and destroyed: and if a few thousand ducks can clear a district of turnips from the blacks, there seems no reason (seeing that, however fast the ducks gobble, their stomachs have no great capacity, and must therefore soon be filled,) why an array of boys, collected from the neighboring villages, might not clear the land quite as effectually, and with little greater cost in the end. The mischief is, that in England [and America, too.—*Cond.*] we are prone to take it for granted that certain evils are irremediable, without ever fairly trying to remove them. Thus, if our hedges or trees are generally and extensively infested with caterpillars, we should laugh at the idea of getting rid of them by manual operations; and yet the French and Belgians, in similar cases, constantly employ such means; and, in fact, the municipal authorities every year enjoin, by printed notices and fines for non-compliance, on the proprietors of the land, *écheniller*, to cut off [the points of the shoots infested] their trees. Even the very Turks (in such matters less fatalists than ourselves) have the good sense to send out whole armies to collect locusts, and to destroy them (as mentioned in the papers in a recent instance) by thousands of bushels.—(*Extract of a letter from Mr. Spence, the Entomologist, in the Gard. Mag.*)

*Efficacy of Cotton in preserving Fruit.*—We have been informed, by a gentleman who has had practical proof of its success, of a new mode of keeping fruits fresh for the table, as grapes, plums, &c., a long time after they have been gathered. It is simply to alternate them in layers with cotton batting, in clean stone jars, and to place them in a chamber secure from frost. A servant in the family of William Morey, Union Village, Washington County, about to visit her friends, secured a quantity of plums in this way, to preserve them until her return. They were found to have kept in excellent condition, long after the fruit had disappeared in the garden. From the hint thus afforded, Mr. Morey, Mr. Holmes, and one or two neighbors, laid down grapes in this manner last fall, and they enjoyed the luxury of fresh fine fruit through the winter, until the early part of March. (*Cultivator.*)

*New mode of Destroying Ants.*—Accident has furnished an excellent receipt for destroying ants. A merchant, whose warehouses were infested by these destructive insects, remarked, on a sudden, that they had deserted one particular room; and observation having con-

vinced him that the circumstance was caused by a barrel of fish oil, which had been placed there, he tried the experiment of placing some of the oil round the plants in the garden, when he found it produced the effect of driving the ants from the place in a few hours. (*French Newspaper.*)

## ART. II. Foreign Notices.

### ENGLAND.

*British Agriculture.*—It is the opinion of competent judges, that the advances made in the agriculture of Great Britain, during the last *seventy* or *eighty* years, are scarcely exceeded by the improvement and extension of its manufactures, within the same period; and that to these advances no other old settled country furnishes any parallel. That they have been very rapid, indeed, the following figures and comparisons abundantly show. In 1760, the total growth of all kinds of grain in England and Wales was about 120,000,000 of bushels. To this should be added, perhaps, 30,000,000 for Scotland—making a grand total of 150,000,000. In 1835, the quantity in both kingdoms could not have been less than 340,000,000 of bushels. In 1755, the population of the whole island did not much, if any, exceed 7,500,000. In 1831, it had risen to 16,525,180, being an increase of 9,000,000, or 120 per cent! Now the improvements in agriculture have more than kept pace with this prodigious increase of demand for its various productions; for it is agreed, on all hands, that the 16,500,000, or rather the 17,500,000, (for more than a million have been added since 1831,) are much fuller fed, and on provisions of a far better quality, than the 7,500,000 were in 1755. Nor is Great Britain indebted at all, at present, to foreign markets for her supplies. Since 1832, she has imported no grain worth mentioning, and till within the last six months prices have been so exceedingly depressed, as to call forth loud complaints from the whole agricultural interest of the country. England is at this moment so far from wanting any of our bread-stuffs, if we had them to export, that she has been supplying us all winter liberally from her own granaries, and, according to the latest advices, she has still bread enough and to spare. Again, it is estimated by British writers of high authority, that the subsistence of 9,000,000 of people costs, in raw produce, not less than £72,000,000, or £8 for each individual per annum. According to this estimate, the annual product of this great branch of national industry is \$350,000,000 more, at present, than it was in 1755; which is more than twice the value of the whole cotton manufacture of the country in 1831. Now if it costs \$350,000,000 to feed the increased population of 9,000,000, then to feed the present population of 17,500,000 must cost near \$700,000,000! What an amazing agricultural product for so small a territory! And yet it is the opinion of practical men of the highest respectability in England, that the raw produce of the island might be well nigh doubled, without any greater proportional expenses being incurred in its production. That is to say, 35,000,000 of people might draw their subsistence from that one little speck in the ocean! Now *we* have a territory more than fifteen times as large as the island of Great Britain; and what should hinder it, when it comes to be brought



under no higher cultivation than some parts of England and Scotland, from sustaining a population of *five* or *six* hundred millions of people? This would give to Virginia something like *thirty* millions—to Illinois and Missouri about the same number each—to New York near *twenty-five* millions, and so in proportion to the other States. I am quite aware that this estimate will be regarded as extremely visionary and incredible by many of your readers; but not more so than it would have been thought, in the middle of the last century, that England, Scotland and Wales could ever be made to sustain thirty-five, or even thirty millions.

Among the causes which have more than doubled the agricultural produce of Great Britain, within the period just alluded to, may be mentioned the inclosing of six or seven millions of acres of commons and common fields, by which their annual product has been increased, in many cases, more than ten-fold—the cultivation of heaths and other waste lands—the redeeming of extensive and inexhaustibly rich fens from the possession of aquatic birds and animals—the great improvement in agricultural implements—the furrow draining of clay and other cold and stiff soils—the better rotation of crops—the extensive introduction of turnips and clover—the immense increase of common manure, and the introduction of one at least, whose extraordinary nutritive qualities have but recently been discovered. Next to wheat, the turnip crop, which forty years ago was hardly worth mentioning, is now more valuable than any other, both to landlords and tenants. It is used chiefly in feeding and fattening cattle and sheep; and while immense numbers of both are kept in the most healthy and thriving condition upon this vegetable, one species of which, the *Ruta Baga*, has lately been introduced and is extensively productive, the lands are greatly enriched, and soon prepared for any other crop which the farmer may find most profitable in his system of rotation. Clover, too, is doing much to enrich the soil of England and Scotland, and to reward the labors of those who moisten it with the sweat of their brows. It is surprising to see to what an extent the light, sandy lands of England have already been redeemed from comparative sterility under this cultivation, and are now sowed with the finest wheat. The process is still going on, and bids fair to proceed as long as there remain any such lands to be reclaimed and enriched. Indeed, who can tell how much the cultivation of the turnip may ultimately add to the wealth, and help to sustain the population of Britain? According to an estimate which I have lately seen, it is now worth *many millions* sterling, per annum, to the single county of Norfolk. *Carrots*, also, are found to be a very profitable crop in some parts of England, and the farmers are turning their attention to the cultivation of this very nutritious esculent, with increasing interest and advantage.

Among the several kinds of manure which have long been in high repute, lime and marl are inexhaustible; particularly the former, which the low price of coal brings at a cheap rate. On some soils, and near the kilns, it is used in great quantities. I have seen fields covered with it, just as ours are with barn manure; and when it is spread, the ground appears, at a little distance, as if it were covered with snow.

But the richest and most profitable kind of dressing which has yet been tried, and which is a new source of agricultural wealth to Great Britain, is *bone manure*. It began first to be used, on a large scale, in Yorkshire and Lincolnshire, where its influence has been all but miraculous! Extensive tracts of country, which a few years ago were mere wastes, occupied by rabbit warrens, have been converted into some of the finest and best managed farms in England. This signal improvement, though it did not begin, has been carried to its present perfection, by the use of the manure just mentioned. Since bone dust has come into gen-

eral use, the turnip crop has been increased, in many instances, *ten fold*, and in few less than *four or five fold*, and the effect has been equally surprising upon the succeeding crops of grain, on the same land. This is the testimony of practical men, well acquainted with all the circumstances, and they have no doubt that the soil will go on progressively improving, and requiring a less quantity of bones, annually, from its increased fertility and power. It answers best on light chalky soils. A single farmer in Lincolnshire is said to have generally about six hundred acres dressed almost entirely with bone manure, furnishing a vast supply of food for cattle, and of common manure for other lands, and is fitting those on which it is sown for bearing the most luxuriant crops of wheat and barley.

In Scotland the use of bone manure is still more recent, but scarcely less productive. In the Lothians, in Berwickshire, and in fact every where, it is working wonders. Being so light and easily transported, compared with any other kind of manure, many a rugged and hilly tract is fertilized by it, which must otherwise have remained in a state of nature. To pulverize the bones, mills are constructed in the vicinity of all the large towns, and, besides what their own markets furnish, large quantities of bone dust are imported by the Scotch farmers.

I am almost ashamed to offer your readers this brief and meagre sketch of the present state of British agriculture; but neither time nor space will permit me to enlarge. There are limits, no doubt, beyond which improvements in cultivating the soil cannot be carried. But there is no reason to think that these limits have yet been approached, even in the most productive districts of England and Scotland: for the science of agriculture never advanced more rapidly than it has done within the last few years; or, rather, I should say, were I entitled to speak with any authority on the subject, it seems to be almost in its infancy. Who that looks at the astonishing improvements of the last fifty years, both in the science and the art of husbandry—who that recollects how lately the potato, that most rich, nutritious and productive of all our farinaceous esculents, has been brought into general use—who that considers what inexhaustible sources of nutrition and fertility and wealth, the turnip and other green crops have so recently become in Britain, will undertake to say, that other vegetables, still more nutritious and productive, may not yet be introduced and brought under general cultivation? Who can tell what new substances scientific and practical agriculturists may yet find, possessing far higher fertilizing virtues than any now in use, or what combinations and mixtures chemistry may furnish, so cheap and so abundant, as to put a new aspect of fertility upon lands already most productive? Who, in looking at the best acre in all England, would venture to say, that it can never, by any possible improvements and discoveries, be made more productive of human sustenance than it now is? Who knows but that a hundred, or a thousand years hence, it may yield four fold? Who, in short, can even conjecture what amazing undeveloped agricultural resources yet lie hidden in lands which have hitherto been regarded as scarcely worth tilling at all? For myself, I do not deem it at all extravagant to predict, that in the millenium, if not before, the single island of Great Britain will produce food enough for a population of *fifty millions*; nor that, when swords shall be beaten into ploughshares and spears into pruning-hooks, and instead of the thorn shall come up the fir-tree, and instead of the briar shall come up the myrrh-tree, the present territory of the United States will pour the boon of plenty into the laps of a *thousand million of inhabitants*!—(Dr. Humphrey's letters from England to the N. Y. Observer.)

*Growing the Epiphyllum truncatum by grafting upon Cactus trian-*

*gularis*.—I could never satisfactorily grow the *Epiphyllum truncatum* upon its own bottom, and therefore was induced to try what could be effected by grafting. In the spring of 1830 I inserted a graft on *Cactus triangularis*, about six inches from the pot; the result of this experiment has been highly gratifying, and the plant is now fifteen inches in height, and has pendulous branches falling in all directions to the bottom of the pot. For four years successively the plant has flowered freely, increasing the number of its flowers as it has increased in size. In November last it produced one hundred and seven flowers, and was greatly admired by all who saw it. The compost used was one half loam, the other half equal proportions of peat and leaf mould, and the pot was well cracked at the bottom . . . . I have a border eighteen inches wide round the inside of the pit of a stove, filled with compost, in which I put such plant as I imagine will grow better in this situation than in pots. In this border a plant of *Epiphyllum truncatum*, grafted, also, on *Cereus triangularis*, was planted about eight years ago; and it is now three feet six inches high, four feet six inches in diameter, and would have been much larger had it not been pruned back occasionally, to prevent it from hanging over the pathway. The plant is supported by a wood frame, the formation of which is nearly that of a parasol; and the profusion of flowers which it produces every spring is really astonishing. Last spring it presented a complete cone of flowers, to the number of above ONE THOUSAND. This plant having produced such a striking effect, I have planted two of the *E. truncatum* in the same border, and I hope to realize similar results.—(*Correspondent of the Gard. Mag for March.*)

### ART. III. Domestic Notices.

*Improving strong Clay soils*.—Such of your readers as may be forming new gardens, or wish to improve old ones, where the soil is a heavy tenacious clay, will perhaps be gratified to learn that by the process of *burning*, the clay may be rendered a very fertile and friable soil. This process of fertilizing clay is not a new one, but the practice has of late become so general in some parts of Europe, as no longer to be a matter of novelty or experiment, and the success which follows its adoption has in many cases been truly wonderful, transforming a stiff unproductive clay into a soil of great fertility, easily worked and totally changed in its appearance. A common remedy resorted to in the case of a superabundance of clay was the addition of large quantities of sand; but this is in many cases expensive, and in none so effectual in producing a fine mellow soil.

The *modus operandi* is as follows. A trench of the desirable length is thrown out, about six or eight feet wide, and three feet deep. At the bottom of this are placed layers of small brush, faggots, &c., and at the top it is filled with old roots, larger wood, &c. The fire is then lighted, and when ignition has commenced the whole is covered with clay, except a few vent holes, for the admission of air. As the combustion increases the whole mass becomes heated, and additions of fresh clay are made to the heap, until it reaches the height of eight or nine

feet, and there is seldom any necessity for a renewal of fuel. After the burning is completed the heap is thrown down, and scattered over the surface.

The *rationale* of burning soils, according to Sir Humphrey Davy, is founded in well known chemical laws. Nearly all soils are composed in their bases of primitive earths and oxide of iron. Certain proportions of these earths have so strong an attraction for each other as to form a single homogeneous compound, which resists, in a great measure, the action of the air and water. Calcination, or burning, by changing these proportions, breaks up that chemical attraction, prevents so intimate a combination, and produces a light porous soil, capable of absorbing water readily, and admitting the air with facility to the roots of vegetation. When the clay contains a superabundance of calcareous matter the latter is converted into an active fertilizer of plants. Peat soils, containing too much inert vegetable substances, are also much improved by burning.—*A. J. D., Botanic Garden and Nurseries, Newburgh, N. Y.*

*Wistaria consequana*.—What has been the fate of the plant you left out (vol. II. p. 236,) of this elegant climber? So much has been said about it that I am determined to try a plant. If it will flower in a pot, and with the protection of an ordinary cold room, in winter, I shall be satisfied with it, but I am in hopes it may be acclimated.—*Yours, J., April 23d, 1837.*

*Schizopetalon Walkeri*.—This sweet little plant is now blooming in our garden, raised from seeds sent from the Imperial Botanic Garden, at St. Petersburg, to the Massachusetts Horticultural Society, by Dr. Fischer. The plants are yet small, but they are each terminated with three or four pure white, fragrant flowers, the petals (five in number,) most exquisitely cut, so as to resemble cut paper. Its habit is very delicate, and it only opens its flowers towards the cool of evening, the rays of the hot sun seeming too powerful for its graceful petals. It flowered in the Botanic Garden, at Cambridge, six or seven years ago, since which time we do not think it has been seen in this country, until now. It certainly merits all the care that can be given it.—*Cond.*

*Bone dust for Rye, Wheat and Grass crops, &c.*—I have been trying about twenty acres of rye, wheat and grass lands with bone dust, and have planted four acres of potatoes in horn shavings, procured from the comb makers, of which I may give you an account when I gather my crops, in the fall.—*Yours, C., New York, June 23, 1837.* [We shall be extremely happy to learn the results of both the wheat and other grain and grass crops, and also of the potatoes. We have ourself a great opinion of the fertilizing properties of bone dust, and have, in another page, copied the observations of Dr. Humphrey, which he has communicated to the *New York Observer*, in the hope of directing the attention of farmers and gardeners to its valuable properties. We are acquainted with a gentleman who has tried the bone dust upon dahlias, the present season; the result of the experiment, which may be important to florists, we shall give in the ensuing fall or winter.—*Cond.*]

*Large specimens of the Cyclamen persicum*.—I have a *Cyclamen persicum*, on which I counted three hundred and seventy-five flowers; and, on another, three hundred flowers, in the month of February last. The bulbs are now dormant, and measure five inches in diameter.—*Yours, C., New York, June 23, 1837.*

*Wistaria Consequana*.—In the garden of Mr. Pantton, of New York, there is a plant of *Wistaria Consequana*, with a stem at least an inch and a half through. It has now been planted about seven years, and has not been protected in the least since it was put into the ground. It

stands near to a large pear tree, over which it ran, year before last, covering the whole tree, and almost destroying it. A great many young and strong plants have been taken from it, and its yearly growth is still so luxuriant as to overrun all objects within its reach. It has flowered beautifully for several years, and, the past spring, was covered with hundreds of its delightful, large, bluish lilac, clusters of blossoms. The garden of Mr. Panton is surrounded by high buildings, as indeed are all city gardens, when the owner of a mansion has the good fortune to possess one, and the severity of the cold, during winter, has less effect in a thickly inhabited city like New York, than in the adjacent country. At Mr. Hogg's, up town, he protects his in a cold house, or frame, but we have no hesitation in saying it would stand the winter in his garden as well as in Mr. Panton's, particularly as it has now acquired a good size; and we have but little doubt but that strong plants, if grown in pots, in the green-house, and turned out into a south border, and trained close to a wall or fence, would flourish well in the country. It possesses splendor enough to repay all the care that may be bestowed upon a plant.—*Cond.*

*Large Magnolia glauca.*—There is now growing, in the fine garden of T. Magoun, Jr. Esq., of Medford, a shrub of this species, which has attained the height of twelve or fifteen feet, and thirty or forty in circumference: it has produced, this season, upwards of five hundred blossoms, a great number of which are now in full beauty. The tree has been planted upwards of twenty-five years, and the base of the trunk is a foot through. It was planted by Mr. William E. Carter, now of the Botanic Garden, Cambridge, when he was gardener to Mr. Ward, who then owned the place. It must be one of the noblest specimens in the country out of its native locality.—*Id.*

#### ART. IV. Retrospective Criticism.

*Seedling Roses.*—Sir,—In the number of your Magazine for June, page 217, Mr. Boll, of New York, writes as follows:—"I observe in your number for April, page 136, an article on raising roses from seed, by Mr. Russell. Is not your correspondent mistaken in saying it requires two years for the seeds to vegetate? [This is an error. It should read *one* year, instead of *two*: the mistake occurred in the translation of the communication, and escaped our notice until too late for alteration.—*Cond.*] I can assure you that I have planted them in the month of February, and, fifteen weeks thereafter, have had a plant from the same in bloom. This rose is now in our establishment, under the name of the Pretty American." Mr. Editor, that Mr. Boll has been so fortunate as to raise the abovementioned rose, and to have had the unspeakable pleasure of beholding its flowers in the time by him specified, I have no reason to doubt; but I must acknowledge, that it appears to me to be a very remarkable instance, and such an one, perhaps, as Mr. Boll himself never saw or heard of before: Mr. Boll further adds, "with particular care the seeds of roses can all be made to vegetate in about four months. But particular care is necessary, and the peculiar cautions requisite I will give you in a fu-

ture number of your Magazine." The information here promised will, I have no doubt, be gladly received by a number of amateurs, whose impatience would not allow them to wait so long before they can ascertain the results of their labors, as I have proposed, in my article. It will be perceived that Mr. Boll says that it takes about four months for the seeds to vegetate, and particular care is necessary,—*the Pretty American* must have had the cultivators' most peculiar care, the seed having vegetated, grown, and the plant produced its flowers, in less time, by two weeks, than is here allowed for the seeds to vegetate. If the reader will take the trouble to look over my article again, he will find that Mr. Boll has evidently misunderstood its meaning.

I beg leave again to state to the reader, that without the aid of some artificial process, the seeds of the roses will not vegetate in less than one year, i. e. if it is placed in the natural ground in the spring of the year, it will not make its appearance before the ensuing spring.—*Yours, J. W. Russell, Mount Auburn, Cambridge, June 20, 1837.*

*West's St. Peter's Grape.*—We stated in our last, p. 196, that we knew not that this variety had been introduced to our gardens. Mr. Wilder, however, has reminded us that he informed us last year that he had it growing at his garden, having introduced it in the spring of 1836. At the time we wrote the notice of this grape it escaped our memory, and we now correct our mistake.—*Cond.*

#### ART. V. Queries, Criticisms, &c.

*Importing Plants in Glass Cases.*—It may be interesting to the readers of your valuable Magazine, to learn that stove and green-house plants can be imported in glass cases, with the greatest safety, in the summer season, provided the officers of the ship which brings them will keep the cases *fully exposed to the sun during the voyage*. I have just received from Messrs. Loddiges & Sons, per the President, a case containing twenty-two pots of plants, out of which only three have perished. Among those in good order are the following:—*Gongora atropurpurea*, *Oncidium flexuosum*, *Metrosideros vera*, *Cattleya Forbesii*, *Epidendrum cochleatum*, *Astrapæa Wallichii*, *Boronia serrulata*, *Erica carinata*, *Pergularia odoratissima*, *Schottia speciosa*, *Márica humilis* and *semi-aperta*, *Tacsonia pinnatifidula*, *Stanhopea grandiflora*, *Denrobium pulchellum*, and also several fine *correae*. The cases cost three guineas each, but will last for several years' transportation, if they are taken care of. Freight from London, about three dollars per case.—*Yours, truly, N. G. C., New York, June 24th, 1837.*

P. S. Messrs. Loddiges & Sons, in their letter to me, under date of 6th May, say, "This mode of packing has been successful *when the cases are kept on deck, in full sun*, but never otherwise; we shall do our utmost to prevail on the commander of the vessel to keep them up, which is all there is to do—as, the air being excluded, there is no evaporation."—*N. G. C.*

*Destruction of the Slugs that infest Rose bushes.*—Is there no remedy for the destruction of the pestiferous insects which eat the leaves of rose bushes in such a manner as to resemble net-work. If any of your correspondents know any remedy, it would be gratefully received by your friend and subscriber—*S., June 22, 1837.*

ART. VI. *Massachusetts Horticultural Society.*

*Saturday, May 27th, 1837.—Exhibited.* From Chas. Olmstead, Esq., of East Hartford, Conn., Belmont apples; they were brought by Mr. Olmstead from Ohio, last autumn. It is considered one of the best fruits of that part of the country.

*Distributed.* Scions of the Belmont apple, from Mr. Olmstead; also, scions of the true Jonathan, or Philip Rick apple, from Messrs. C. & A. J. Downing, Newburgh, N. Y.

*Saturday, June 9th.—Exhibited.* From Mr. D. Haggerston, gardener to J. P. Cushing, Esq., a fine specimen of *Cereus speciosissimus*, and a splendid new variety; also, a pot of Keen's seedling strawberries. From J. A. Kenrick, seven varieties of pæonies, and a number of varieties of azaleas.

*Saturday, 16th.—Exhibited.* From S. R. Johnson, of Charlestown, flowers of the yellow and red Austrian rose, and *Polemonium cæruleum*. From S. Walker, bouquets of flowers, containing *Dictamnus fraxinella*, *Spiræa filipendula* fl. pl., *Hesperis matronalis* fl. pl. alba, *Polemonium cæruleum*, *Lychnis Flosculi* fl. pl. Iris pallida, and several fine varieties of pansies.

ART. VII. *Fulton Market, New York.*

*Vegetables.*—Potatoes, per bushel: Kidney's, 83 cts. to \$1.25; common, 56 to 62½ cts. New turnips, 12½ cts per bunch, (of eight or ten.) Horseradish, per doz. roots, 37½ cts. Radishes, per doz. bunches, 18 to 37½ cts. Shallots, per bunch, 2 cts. Garlic, per bunch, (of 100,) 40 to 50 cts. Early cabbages, each, 4 to 8 cts. Lettuce, per dozen heads, 12½ to 50 cts. Peas, per half peck, 18 to 50 cts. String or bush beans, per half peck, 75 cts. Asparagus, per bunch, 12½ to 25 cts. Cauliflowers, each, 25 cts. Spinach, per half peck, 12½ cts. Pumpkins, per pound, 3 cts.

*Fruit.*—Apples, per barrel: Russets, \$1.75 to \$3.00. Cranberries, per half peck, \$1.00. Pine apples, each, 12½ to 25 cts. Cherries, per pound, 25 cts. Strawberries, per basket, (containing about a pint,) to 12½ cts. Green gooseberries, per half peck, 37½ cts. Green currants, 7 per half peck, 25 cts. Cucumbers, each, 12½ to 25 cts. Lemons, per doz. 25 cts. Oranges, per doz. 37½ to 62½ cts. Limes, per doz. 12½ cts. Bananas, per doz. 50 cts. Yams, per pound, 4 cts. Coconuts, per dozen, 75 cts.

*REMARKS.*—Beets, carrots, salsify and winter turnips are gone. Radishes and lettuces plentiful. Cauliflowers are scarce. Bush beans have just come in, and are yet scarce. Of peas and early cabbages a very good supply. Pumpkins plentiful. Old onions are out of the market. Garlic abundant. Rhubarb, scarcely any, and what there is good for nothing.

Of apples, with the exception of Russets, there are none. Cranberries are almost gone. Cherries scarce: strawberries a good supply. Bananas are scarce. Pine apples abundant. Of other fruits a good supply. Dried fruits are almost a drug.—*Yours, J. H., New York, June 19, 1837.*

## ART. VIII. Faneuil Hall Market.

		From	To			From	To
<i>Roots, Tubers, &amp;c.</i>		\$ cts.	\$ cts.	<i>Squashes and Pumpkins.</i>		\$ cts.	\$ cts.
Potatoes :				Winter crookneck, per pound,			
Common, { per barrel, . . .	1 50	1 75		West India, per pound, . . .	2	3	
{ per bushel, . . .	50	55		Pumpkins, each, . . .	12½	20	
Chenangoes, { per barrel, . . .	2 00	2 50					
{ per bushel, . . .	75	1 00		<i>Pot and Sweet Herbs.</i>			
Nova Scotia, { per barrel, . . .	2 25	2 50		Parsley, per half peck, . . .	25		
{ per bushel, . . .	75	1 00		Sage, per pound, . . .	17	20	
New, per half peck, . . .	37½	50		Marjoram, per bunch, . . .	6	12	
Turnips: common,				Savory, per bunch, . . .	6	12	
per bushel, . . .	1 00			Spearmint, per bunch, . . .	6		
New, per bunch, . . .	6	8					
Onions :				<i>Fruits.</i>			
per bushel, . . .	2 50	3 00		Apples, dessert :			
red, { per bunch, . . .	4	6		Common, { per barrel, . . .			
white, { per bunch, . . .	4	6		{ per bushel, . . .			
New onions, per bunch, . . .	6	8		Russets, { per barrel, . . .	3 50	4 00	
Beets, { old, per bushel, . . .	1 00			{ per bushel, . . .	2 00		
{ new, per bunch, . . .	6			Pears :			
Carrots, per bushel, . . .	1 00			Baking, { per barrel, . . .	3 50	4 00	
Parsnips, per bushel, . . .	1 00			{ per bushel, . . .	1 50	2 00	
Horseradish, per pound, . . .	12			Watermelons, each, . . .	50	75	
Radishes, per bunch, . . .				Cherries, per quart, . . .	20	25	
Scarlet short top, . . .	2	3		Strawberries, per quart:			
Scarlet turnip, . . .	2	3		Wood, . . .	25	37½	
Shallots, per pound, . . .	20			Keen's seedling, . . .	50	75	
Garlic, per pound, . . .	14			Common, . . .	37½	50	
				Cranberries, per bushel, . . .	6 00	7 00	
<i>Cabbages, Salads, &amp;c.</i>				Pine-apples, each, . . .	12½	25	
Cabbages :				Cocoanuts, each, . . .	6		
Early, each, . . .	6			Green gooseberries, per quart, . . .	17	20	
Cauliflowers, each, . . .	25	50		Green currants, per quart, . . .	6		
Lettuce, per head, . . .	3	4		Cucumbers, each, . . .	12½	25	
Rhubarb, per pound, . . .	3	4		Oranges, { per box, . . .	4 00	4 50	
Peas, { per bushel, . . .	1 00			{ per dozen, . . .	25	50	
{ per peck, . . .	25			Lemons, { per box, . . .	3 00	3 25	
String beans, per half peck, . . .	37½	50		{ per dozen, . . .	25	37½	
Spinach, per peck, . . .	12½			Shaddocks, each, . . .	25		
Dandelions, per peck, . . .	12½			Walnuts, { per barrel, . . .	4 00	4 50	
Cabbage sprouts, per peck, . . .	12½			{ per bushel, . . .	2 25	2 50	
Beet tops, per peck, . . .	12½			Almonds, (sweet,) per pound, . . .	12	14	
Asparagus, per bunch, . . .	6	8		Filberts, per pound, . . .	4	6	
				Castana, . . .	3	6	

REMARKS.—The market has been better supplied with new vegetables this month than was anticipated at the date of our last report; favorable weather in the early part of the month advanced vegetation rapidly. Notwithstanding the more abundant supply, and accordingly a reduction of the price of the more plentiful articles, small sales are only effected, and those principally with city customers, or those in the immediate vicinity. The prostration of business throughout the country has affected the marketman as well as the merchant, mechanic, or manufacturer. Not only are the more luxurious articles purchased in smaller quantities than usual, but there being few strangers in town compared with the number last season at this time, the demand is ex-



ceedingly limited. A revival is, however, looked for, and should the crops prove as abundant as we have now every reason to believe they will be, the moderate prices will induce a more ready sale of many articles.

Potatoes are scarce; a few new ones from New York were in the market this week, but they were small and inferior: the new crop from the vicinity will come in before our next report. New turnips are quite plenty, much more so than last year at this time; old ones are all gone: no French in the market. New onions are abundant, and of excellent quality and good size; no old ones are to be found, except a few inferior Connecticut reds. Old beets are nearly gone; new ones have come to hand this week, of tolerable size. Parsnips and carrots are about gone. Radishes are exceedingly plentiful and fine. The first early cabbages of any size were brought in this week; we take this opportunity to remark that a few of the Vanack which we have observed for sale had remarkable firm heads for this early season: it is a first-rate variety. No cauliflowers yet. Lettuce is plenty. Rhubarb very abundant, almost a drug. Spinach and other greens abundant. Asparagus has been uncommonly abundant. Peas have come to hand in large quantities, and are now selling at very moderate prices: the crop is good. String beans have made their appearance from New York. West India squashes are yet plentiful.

Of fruit the last year's stock is reduced: no kinds of apples are now to be found, except the Russets; and but few of the latter remain on hand. Baking pears all gone. Cherries are not plentiful, nor as good as in seasons in general. Pine-apples were, we believe, never so abundant or more excellent in flavor than this season; the arrivals have been very numerous, and the fruit in fine order. Green fruits for tarts are plentiful. Strawberries come in of fine size, and in tolerable abundance, more so than last year. Cucumbers are now more plentiful, and will soon come in from the open ground. Cranberries are yet to be had. Oranges are considerably higher than at our last.—*Yours, M. T., Boston, June 23, 1837.*

## HORTICULTURAL MEMORANDA

### FOR JULY.

THE month so far (June 24,) has been much more favorable to vegetation than the same season last year: vines and other tender plants, which barely stood the cold and wet weather of May, now look strong and vigorous. Seeds committed to the soil in June have vegetated freely.

Now is the season to destroy weeds and insects: there is no so sure way to do the latter thoroughly as by manual operations: it is of no use to trust to nostrums, decoctions, &c. &c.; the best and surest method to destroy nearly all troublesome insects (except the red spider and aphis,) is by picking them off by hand: one man will go over a large piece of ground in a day or two, and destroy more than he would in ten times the amount of time spent in syringing with tobacco water, dusting with snuff, &c. &c.

## FRUIT DEPARTMENT.

*Grape vines* in the grapery will now need frequent syringings: give, also, good quantities of air. Now will be the time to thin out the clusters of fruit, if it is desirable to have the berries of fine size; some persons may, however, think this is of no use: it is not, if fine large clusters, well filled and yet not crowded, are not an object. One man who understands the operation will go over a large grapery in a day, and if forced for the market, the higher price such will bring will more than defray his expenses. Keep the vines well thinned, and laid open to the sun as much as possible. Vines in the open garden should now be divested of superfluous shoots, and those reserved for another season carefully washed, or tied to the wall or trellis.

*Strawberry beds* should now be looked over, and the superfluous runners cut off. If it is intended to make new beds in the month of September, some of the strongest runners should be pegged into the ground, and the weak ones cut away.

## FLOWER DEPARTMENT.

*Dahlias*: strong plants of dahlias may yet be set out, and they will flower abundantly in September. The plants set out in June will now need staking, and if dry weather ensues they will need water.

*Tulips, hyacinths*, and other bulbs of similar habit, should be taken up.

*Ixias, sparaxises, &c.* in pots, should be taken out, and laid away in dry papers.

*Geraniums* should be propagated from cuttings; now is the best season.

*Ericas* should be still propagated.

*Camellias*, if not removed from the green-house, should be immediately, or their flower buds will be too far advanced, and the plants shoot into a new growth.

*Lemon and orange stocks* may be budded the latter part of the month.

*Pansies* may be now increased by pipings.

*Chrysanthemums* should be topped in the early part of the month.

*Carnations and pinks* should be layered and piped this month.

*Perennial flower seeds* may be yet sown.

*Cactuses* may be removed from the stove or green-house to the open air.

*Mignonette*, sown the latter part of the month, will bloom in November and December.

*Calceolarias*, as soon as they have done flowering, should be sparingly watered.

*Rose-bushes* may be layered and budded this month.

## VEGETABLE DEPARTMENT.

*Celery* plants should now be set out for earthing up.

*Cucumbers* may be yet sown for pickles.

*Sow lettuce* for a fall crop.

*Rhubarb*: new beds may now be prepared for planting the roots early in September.

# THE MAGAZINE OF HORTICULTURE,

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AUGUST, 1837.

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## ORIGINAL COMMUNICATIONS.

ART. I. *Protection against Hail Storms. Notice and Description of the Paragrèle, or Hail Rod.* By A. J. DOWNING, Botanic Garden and Nurseries, Newburgh, N. Y.

THE *paragrèle*, or hail rod, appears to be scarcely known at present in this country. Hail storms are undoubtedly much less frequent here than in the middle and south of Europe; but, nevertheless, some districts of the United States seem peculiarly liable to hail-storms in summer, and an account of the means at present in use on the Continent of Europe to guard against such evils will be acceptable to many of the readers of this Magazine.

The *paragrèle*, we believe, was first invented by M. Laposolle, of Amiens. It has, however, been considerably improved by Professor Trollard, of Tarbes, whom we quote for authority for the following description, from Berneaud's excellent *Manuel du Vigneron*.

"To make the hail rod a rope of straw is the first thing necessary; it must be made of ripe wheat straw, soaked and twisted, plaited with three strand and then with four ply, making twelve strand to the rope. This cable of straw must be twenty-five feet long, and through the centre there must run a strong twine of tow yarn: this cable of straw must be fastened at top and bottom to a stake of the same length, solidly fixed in the ground, and armed at the top with a metallic point of tin, (*latten*,) *with no iron*. The stake should be a pole of firm wood, entirely cleared of the bark, which makes it liable to rot. The cable is fastened, at each end, by a wire of tin, or, what is better, red copper, and must be stretched tight, and tied to the pole, at intervals of every foot and a half, with the same wire.

The tin point at top should be one and a half inch thick and eight inches long, placed in direct contact with the tow yarn. The hail rods should be about six hundred feet apart, and fixed upon the most elevated points, such as the tops of hills, roofs of houses, or trunks of stout trees. The cost is about a franc a piece, (twenty cents,) and they last at least fifteen years."

These hail rods, so simple in their construction, and easily obtained in every part of the country, have now, we believe, been in use nearly twenty years in France and Switzerland. Many extensive districts in both these countries, which formerly suffered severely from hail storms, and in which the crops and vineyards were subject almost annually to great destruction, are, since the *paragrèle* has been generally adopted, protected almost entirely against their desolating effects. The Linnæan Society of Paris, some time since, with a commendable zeal, made extensive inquiries in all parts of the Continent respecting the utility of this instrument, and the result, as exhibited by them, proves the *paragrèle*, in all districts liable to hail storms, to be an invention truly invaluable. Public experiments were made in such parts of the country as were most subject to hail showers, and while those districts where *paragrèles* had been erected were quite protected, neighboring districts not guarded by these hail-rods, were, as before, much devastated. The Society, drawing their conclusions from the facts elicited by the various trials made in France, estimated that the annual saving which would arise from a general adoption of the *paragrèle*, throughout that country, would not be less than five millions of dollars.

Considerable difference of opinion exists as to the method by which the *paragrèle* produces its effects. A commonly received theory, based on the supposition that hail is produced by a congelation of the drops of water, in very elevated strata of the atmosphere, is, that the hail rod, by attracting and detaining these vapors in a lower stratum than that in which freezing takes place, prevents its formation. But as hail storms are generally accompanied by thunder and lightning, an American writer has suggested that the *paragrèle* acts by abstracting the superabundance of electricity from highly charged clouds. The formation of hail, according to this writer, takes place only when, by the sudden passage of the electric fluid through the cloud, a portion of the water is decomposed, and returns into its original gaseous state, the heat abstracted (by the change from a liquid to an æriform state,) from the neighboring particles (or clouds?) is so great as to convert them into ice, when they descend in the form of hail. The decomposition of a single cubic inch of water, according to the tables of *Biot*, will reduce the temperature of 5.64 pounds of water from 72° to 32°, the freezing point of Fahrenheit. The decomposition of water by the electric spark is now a well

known fact, but the peculiar manner in which electricity acts upon the clouds, or the exact manner in which they must be situated, in order that hail shall be produced, does not yet appear to us to be clearly demonstrated. That, however, the electric fluid is a necessary agent in the production of hail in summer, we can scarcely doubt; and the claims of the paragrèle or hail rod appear so well established, that we do not hesitate to recommend strongly the use of so valuable a means of protection in all parts of the Union liable to frequent or destructive hail storms.

A. J. D.

Newburgh, N. Y., July 15, 1837.

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**ART. II.** *Some Remarks on the herbaceous Pæonies, together with a description of most of the Species and Varieties, and a few observations upon their Propagation, Cultivation, &c.* By the CONDUCTOR.

IN our last volume, pp. 335 and 367, we gave an account of the *tree* pæonies, describing all the species and varieties, with their mode of propagation, cultivation, &c., and it was our intention at the time to have added some observations upon the herbaceous species and varieties; but the extreme length to which that article was extended, embracing everything in relation to the tree pæonies, and an enumeration of every known species or variety, up to the time it was written, prevented us from saying anything respecting the herbaceous ones. We have therefore thought that an account of them would not be unacceptable at the present time: we believe that very little is known about the majority of the species and varieties, and as cultivators are about adding many of the tribe to their collections, our remarks may probably serve as a guide to a better selection of those which are truly beautiful and desirable.

The pæony, though its flowers are of short duration, is one of the most gorgeous tribes in the vegetable kingdom, and contributes more to the splendor of the garden, in the spring and early summer months, than any other family whatever: preceding the beautiful and fragrant rose in its season of blooming, and the latest species and varieties shedding their faded flowers just as the former begin to open, they expand at a time, when, if we

except the tulip, no other plants of any great ornament are in bloom. In the numerous species and varieties are displayed a great variety of colors, from pure white, through the intermediate shades of blush, rosy, red, &c., to deep purple, with both single and double flowers. Combining these with a perfect hardness of constitution, a free habit of blooming, and of the most simple cultivation, they present claims to the floriculturist which few other plants can be said to possess.

The old double red pæony is so common, that the family, of which it may be said to be one of the best, is at once familiar to every reader: all the double ones, though not shaped precisely like this, have a similar habit and formation; the single species and varieties have from six to ten petals, and somewhat resemble a single poppy, with the exception of the stigmas, which are three and upwards in number, as in the double ones: some of these latter are very showy, while others are scarcely worth a place in a garden, unless the object is to fill up a shrubbery in a large garden, or to grow in a shady situation, in which they flourish much better than most other plants. They are then desirable, and their great abundance of flowers in part make up the loss of their individual beauty.

The first species introduced to England was the *officinalis*, the parent of the common double-red; it is a native of Switzerland and other parts of Europe, and also of China and Japan, and was known as early as 1548. At what time, however, the double variety appeared, there is no accurate data; but it was the first *double* one known in England. Sometime after it became generally cultivated, the *albiflora*, and several varieties of great beauty raised from it, together with many others, were introduced. Within a very few years some four or five varieties have been imported from China, of surpassing splendor; these are not yet found in many collections, but their rapidity of increase will soon place them in the hands of all desirous of procuring them.

But few collections in this country yet embrace only a limited number of sorts, and these confined to particular ones; but the greater part of all those yet known have flowered with us the past spring, and we took the opportunity to make such notes and observations as will enable us to give a very short description of all that displayed their blossoms. The names under which we received them are, we believe, generally correct; but whether entirely so or not we cannot now state; we therefore give those by which they are known to us.

*Pæonia officinalis*.—This species has large, single, crimson flowers, with yellow stamens; its habit of growth is of the middle size, the branches spreading. The blossoms are produced

from the 1st to the 6th of June. One of the single sorts worthy of general cultivation.

*P. officinàlis var. blànda*.—A variety of the former, with middle sized, pale purple, flowers, produced from the 1st to the 4th of June: same habit of its parent. Not very desirable.

*P. officinàlis var. Sabini*.—One of the most showy of all the single ones: the flowers are extremely large, of a very brilliant crimson, with bright yellow stamens and anthers: in foliage and habit just like the last: in flower from the 4th to the 12th of June. It is a variety which should be in every garden.

*P. officinàlis var. albicans*.—With fine large double flowers, of a pale rosy color, when they first expand, but gradually changing to a very pale blush, nearly white; it has the same habit of the other varieties of the species, and is a free flowerer. In bloom from the 4th to the 12th of June. One of the best.

*P. officinàlis var. carnescens*.—A very showy double variety, with pale rosy flowers faintly striped with a deeper tint: habit the same as its parent. In full flower from the 4th to the 12th of June. Together with the last named, it should be found in every good collection.

*P. officinàlis var. rubra*.—The well known, universally cultivated, and always admired *old* double red. We do not know how long it has been in this country, though we presume some of the older amateurs of the present day may have been the first to import it. It commanded a great price when first known in England. So general has it now become, that almost every village garden possesses a clump of roots, and the little parterres in front of cottages, by the road sides, throughout the country, are decked with its gay blossoms in the month of June. All the varieties of the *officinàlis* are of the same habit as this, and bloom at nearly the same time, from the 4th to the 12th of June; in sunny situations, however, in a dry soil, they flower much earlier. It is one of the showiest and most desirable, and only wants *rarity* to render it a plant that would be more sought after than any other variety of the herbaceous ones. It goes under the name of *atrorubens* in some English nursery catalogues, having ourselves received it once under this name.

*P. albiflora*.—This species is a native of Siberia, and was introduced to England in 1784. It has large single white flowers, with brilliant yellow stamens. It grows taller and more erect than the *officinàlis* and its varieties, (about three feet,) and has a smooth shining foliage, much more ornamental than the former. In perfection from the 8th to the 16th of June. Not so desirable as most of the varieties.

*P. albiflora var. vestàlis*.—A single white variety, with a similar habit and character to the original species. It is also a native of Siberia. Flowers from the 8th to the 16th of June.

*P. albiflora* var. *uniflora*.—Of a very erect habit, with single white flowers, similar to the *vestalis*: sometimes two flowers appear on a branch. This is also a native of Siberia, and is in beauty from the 8th to the 16th of June. Rather more attractive than the two last named.

*P. albiflora* var. *tartarica*.—One of the prettiest of the single flowered varieties. The blossoms have from ten to fifteen petals each, are often in clusters of from two to six on a branch, and of a pale pink or flesh color; the habit of the plant, like the *uniflora*, is erect and tall, and the flowers have a very showy appearance, from their great number. A native of Siberia, and blossoms from the 8th to the 16th of June. It should be in every collection of any extent.

*P. albiflora* var. *cándida*.—With flesh colored flowers of about eight petals, and similar in character to the *vestalis*: it is a native of Siberia, and in perfection at the same time as the latter variety. Of no great beauty.

*P. albiflora* var. *Whitlèji*.—A splendid variety, with very large double flowers, of a creamy pink when they first expand, afterwards becoming white: the outer row of petals is large, as in the old double red, but the inner ones are smaller, and the flower assumes a more conical shape. It is already in all choice collections, but it is yet new to most gardens. The flowers are produced on tall erect stems, which, however, become pendant, when they expand, from their great weight. It is a native of China, from whence it was introduced to England, along with the *Hùmei* and *fràgrans*, about 1784. Probably this and all the following varieties of *albiflora* were raised from seed by the Chinese. In perfection from the 12th to the 25th of June. It is one of the most beautiful and desirable in a garden.

*P. albiflora* var. *Hùmei*.—With very large, double, rose colored, blossoms, and the same habit as the *Whitlèji*; it flowers at the same period, and was introduced from China. Equally elegant with the *Whitlèji*.

*P. albiflora* var. *fràgrans*.—Another handsome variety, said to possess considerable fragrance, but in so slight a degree as scarcely to deserve the name. Like the whole tribe of *pæonies*, and, indeed, most of the *Ranunculaceæ*, to which they belong, they are narcotic in a high degree, and by frequent smelling of this variety, what odor there is soon becomes disagreeable. At a distance it is not unpleasant. This variety flowers later than the *Whitlèji*, coming into bloom just as that variety is going out, and thus keeping up the display for upwards of a month: the height of their flowering is about the 30th of June, though we have frequently seen fine flowers cut as late as the middle of July. Habit the same as the *Whitlèji*, of rather taller growth, with erect stems: flowers large and double, of a deep rose color.



It was introduced, with the last two varieties, from China, and is as desirable as either of them.

*P. albiflora* var. *Póttst.*—This is the name of a new variety, with splendid double crimson flowers. Introduced from China, by Mr. John Potts, in compliment to whom it was named by Mr. Sabine, in 1822. Its habit is the same as the others. It is figured in the *Botanical Register*, t. 1436. It has, we believe, been imported alive into the country, but has not yet flowered, to our knowledge. It was said to be one of the most brilliant of the varieties of the *albiflora* previous to the introduction of the following.

*P. albiflora* var. *Reevesii.*—Another lately introduced variety, of great magnificence. It was brought from China by Mr. John Reeves, a few years since, and, from a figure in *Paxton's Magazine of Botany*, (vol. I, p. 197,) we should judge it to excel all the red ones. The flower is large, and the petals have a velvety appearance. It is yet rare in England, and is in but one or two collections in this country, and has not yet flowered here. But we mention it, so that amateurs who are making a selection will know what are fine and worthy of possessing.

*P. tenuifolia.*—A generally admired species, of a dwarf habit, but with very delicate, finely cut foliage, from whence its name. The flowers are single and deep red, and are produced on very short peduncles. The whole plant does not attain above a foot in height. It is a native of Siberia, and it is another of the single ones worth cultivating. It flowers from the 10th to the 16th of June.

*P. tenuifolia* var. *plena.*—Figured in *Sweet's British Flower Garden*, t. 345, and said to have been received by Mr. Goldie, nurseryman, at Ayr, from the Imperial Botanic Garden, at St. Petersburg. It is very splendid, with double, deep red flowers, and the same exquisite foliage of its parent. It is not yet in this country, but will probably soon be introduced, and must be grown, along with the *Whitleji*, *fragens*, &c., in every choice collection. It is, we believe, a native of Siberia.

*P. corallina.*—A single flowered species, with middle sized, dull purplish red, blossoms, appearing from the 8th to the 16th of June. The habit of the plant is dwarf. It is only deserving of cultivation when the object is to collect together all the species. A native of Switzerland.

*P. anomala.*—With single pale red or pink flowers, of a drooping habit, appearing about the same time as the *corallina*. Its habit is also dwarf. A native of Siberia. A pretty species.

*P. triternata.*—This species has single purple flowers: the plant grows erect, about two feet high. In blossom from the 6th to the 12th of June. A native of Siberia. Of no great beauty.

All the above species and varieties have smooth leaves: the foliage of the following kinds is pubescent underneath.

*P. peregrina*.—This is a tolerably pretty species, with single, shaded purple, blossoms; the plant has a dwarfish habit, and displays its flowers among the first of the season, on which account it is a desirable species. In perfection from the 1st to the 6th of June. A native of the Levant.

*P. peregrina* var. *Grevillii*.—Similar to the last in its flowers and habit, the former of which are single pale purple, with yellow stamens. Flowers early, from the 1st to the 8th of June.

*P. peregrina* var. *compacta*.—Densely dwarf and compact in its mode of growth, and is interesting, from the small stature of the plant, which produces numerous small, single, pale purple, flowers, at the same time as the last variety. It is ornamental in the border, and although its flowers, like all the single ones, are very fugitive, it is a desirable variety.

*P. paradoxica*.—One of the handsomest of the single kinds, blooming early and abundantly, with large, deep purple, flowers and yellow stamens, contrasting elegantly with the color of the petals. It is the first pæony in bloom, opening about the 28th of May, and going out of flower about the 8th or 10th of June. It is a native of the Levant, and is an ornamental species.

*P. paradoxica* var. *fimbriata*.—A very fine double variety, with the petals somewhat jagged, from whence its name, as sometimes called, the fringed pæony. The flowers are rosy purple, and large; the habit of the plant is nearly the same as its parent. In perfection from the 10th to the 20th of June. For beauty it must be classed with the *albiflora* var. *Whitleji*, &c., and cultivated in all gardens where these are grown.

*P. decora*.—Produces large, single, deep crimson flowers: plants under the middle size: in bloom early, from the 1st to the 8th of June.

*P. decora* var. *Pallasii*.—In habit and character similar to the *decora*: the flowers are single, of a deep bright purple, with small yellow stamens. In bloom from the 2d to the 8th of June. A pretty variety.

*P. decora* var. *elätior*.—Like the last in almost every respect, both as regards its habit, time of flowering, and size and color of the blossoms.

*P. arietina*.—With single, pale purple, flowers, produced from the 1st to the 8th of June; plant middle sized. Not very attractive.

*P. arietina* var. *oxoniensis* (?)—Another of the family, with large, single, pale rosy, flowers, and bright yellow stamens; one of the earliest in bloom, opening about the close of May. Tolerably pretty.

*P. humilis*.—With handsome, rich rosy purple, flowers, of a

cupped form, and with bright yellow stamens; the habit of the plant is dwarf. It is a native of Spain, and was introduced to England in 1633. It is a very desirable species.

*P. humilis* var. *cæ'sia* (?)—This has larger flowers than the *P. humilis*, of a pale purple color. The plant is pretty in its habit, and has neat foliage. Flowers from the 2d to the 8th of June. We doubt some of this being a variety of the *humilis*; it grows too strong. It is, however, quite handsome.

*P. mollis*.—Has dark, dull, single, purple flowers, and small stamens, and is scarcely worth growing at all. It flowers from the 1st to the 8th of June.

*P. pùbens*.—One of the first to display its blossoms, which are middle sized, single, and of a light purple color, with rich yellow stamens; the petals are wavy. Opens its flowers from the 28th of May to the 6th of June. More desirable than many of the single purple ones.

*P. Rússi*.—Noticed in our II, p. 22. It is a very fine species, with large, rich deep crimson, single flowers, from six to ten petals each, and brilliant deep yellow stamens. It is a native of Sicily. In beauty from the 4th to the 12th of June. This should be in all gardens.

*P. præ'cox* (?)—Flowers single purple, with light yellow stamens; habit of the plant dwarf. Blooms from the 4th to the 12th of June. Of no great attraction. We have some doubt about the correctness of the name; but it is the one under which we received it.

The above are all the species and varieties which have flowered in our collection. We have some others, but prefer not to give their description until another season. The names are as follows:—*villòsa*, *crética*, *mulipétala*, *lobàta*, *hybrida*, and *Bax'téri*. They are all, we believe, single flowered ones.

For a small garden, where it is only wished to grow the choicest sorts, we enumerate the following:—*P. officinàlis* var. *Sabini*, *blànda*, *álbicans*, *carnéscens*, *rùbra*, *albiflòra* var. *uniflòra*, *tartàrica*, *sibèrica*, *Whitlèji*, *Hùmei*, *fràgrans*, *Póttsi*, and *Reevèsi*, *P. tenuifòlia* and *tenuifòlia* var. *plèna*, *P. paradòxica*, and *paradòxica* var. *fimbriàta*, *P. peregrina* var. *compàcta*, and *P. Rússi*. Such, however, as suit the taste, can be chosen from the above descriptive list. In very large gardens, where there are extensive pleasure grounds and flower borders, we would advise the planting of every species and variety.

The cultivation of the herbaceous pæonies is simple and easy, as may be perceived in the fact that the old double red has become so generally diffused over so great an extent of country, and is grown in any and every soil or situation; sometimes under the drip and shade of trees, at others in the full sun; in a rich soil and in a poor one; in either place or soil they flourish well,

though the plants have a preference for a good loamy situation. In a like manner all the species and varieties may be grown as easily as the old red: after a kind has been once purchased it can be increased very rapidly. But as there may be some new beginners who may need a little information respecting their propagation, and as we have something to offer upon raising the plants from seed, we shall conclude this article with the following heads,—Raising new varieties from seed, propagation, and cultivation.

*Raising new varieties from Seed.*—It is not a little remarkable that the raising of new varieties of pæonies, among the multitude of plants which have been experimented upon, for that purpose, by English amateurs, gentlemen and nurserymen, has never been tried, or, if practised, has never been attended with success. Of the tree pæonies, though no new seedlings have been obtained, in Britain, superior to the *P. Moultan* var. *papaveracea* Banksia, Lord Mountnorris has raised several which are exceedingly beautiful: the brothers Baumann, of Bolwiller, have also raised some fine ones, equalling, according to their catalogues, any of the varieties. Other attempts have been, and still are, made with the shrubby kinds. But the herbaceous ones have altogether escaped any notice. We believe that not a single plant has ever been raised; at least, we find no record of such in what works we have had occasion to read. The whole of the above numerous list are mostly natives of Siberia and China, and all the fine double ones have been imported from the latter country, and were undoubtedly produced by the Chinese, from seeds, either by accident or by their skill. When, however, the seeds can be so easily gathered, and impregnation so well attended to, we cannot cease to wonder that the herbaceous ones have so long been neglected. We have no hesitation in saying, that were this operation persevered in, and judicious mixtures made, many exceedingly splendid double varieties would be the result. And we cannot here omit to call the attention of our cultivators to the subject, lest they should fall into the same way as their distant friends. Both the double and single ones produce an abundance of seed, and it needs only patience to continue such experiments. When we reflect upon what has been done with the dahlia alone, not to mention the camellia and other plants, we certainly cannot but feel encouraged to proceed. Let a beginning be made at once, and there need be no fear of a rich reward for the pains.

The seeds are generally ripe in August, and should be immediately taken from the plant, and put into paper bags, where they may remain a few days, until a place can be prepared for planting them. Let this also be done, and sow the seeds in drills, covered about half an inch, where they must remain, and in the

following spring the young plants will make their appearance. They should be allowed to stand in the seed bed about three years, after which they may be removed to the places in the flower border, where they are to remain, to produce bloom, which they generally do in the fifth year, when their character can be ascertained, and the expectations of the cultivator realized, by, perhaps, the opening of one or two, out of a number, superb double varieties.

**Propagation.**—This consists in merely separating the roots, reserving a good eye to each; any root, however small, will grow, provided it has a bud attached to it, otherwise it will probably not. The best time for dividing the roots is the month of September; they may then be removed with safety; and if the roots are of a tolerable size, and have a *full, prominent*, bud attached, they will flower the following season. They may also be removed in the early part of the month of April, with success, so as to bloom the same season, but September is the best time.

**Cultivation.**—In almost any soil or situation they will grow, but we have found them to produce the largest flowers in a rich, deep, loamy soil, not too retentive of moisture; a partially shaded aspect is also more favorable to the production of good flowers than a sunny one; they likewise remain in perfection a longer time. They are all perfectly hardy, and need no protection of any kind. One thing should be borne in mind, to remove the roots every three or four years, at the same time separating them, as the flowers will not be so large and fine when the roots get grown together in a mass.

Pæonies force very well, and where there is green-house, with plenty of room, and a quantity of spare roots, a number of plants may be potted. The only labor is to put two or three good tubers, with a *prominent* eye attached, into a pot (about number six,) of rich loamy soil, in the month of October: from this time till January the plants may remain in a cool place, free from frost, when they should be taken into the green-house, and set in a cool, rather shady situation, but where they will have the benefit of the fresh air admitted to the house; this will prevent their being drawn up; and a fine display of blossoms will be the result. After the plants have flowered the roots may be turned into the border, where they will recover their strength.

The species and varieties that we have enumerated in this article embrace nearly all, we believe, that have been introduced to England; and those who are desirous of adding all the kinds to their collections, will find an account of every new one, should there be any raised from seed, or imported from China, under our head of Floricultural Notices; we shall be happy to learn that experiments will be tried by our amateurs to produce new varieties.

We have stated (page 210,) that a great lover of the tribe intended to commence, this season, with sowing seeds, and we hope others will follow. How infinite a variety might be produced, and how brilliant would be our gardens, in June, with the gorgeous colors of their blossoms!

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ART. III. *On the Cultivation and Treatment of Pelargoniums.*  
By THOMAS HOGG, Nurseryman, New York.

As I believe it would be acceptable to many of your readers to know the mode of treatment necessary to grow, and bloom in perfection, that most beautiful tribe of plants, the pelargoniums, which are now so universally and deservedly admired, I would beg leave, through the medium of your valuable Magazine, to lay before them the mode which I have adopted, and which I find from experience to be the best way of having a succession of bloom from February to July.

In your March number you have an excellent paper on the propagation of this tribe, by Mr. Russell, which I would recommend to the attentive perusal of your readers; as, however, he has not entered fully into the details of their cultivation, but confined his remarks principally to their propagation, my remarks will be limited on the latter, and more extended on the former.\*

I would remark, however, with all deference to Mr. Russell's choice, that I shall use the name pelargonium, because it is the proper name of this tribe of plants, geranium being the name of another genus, and no more applicable to that under consideration than the name *Artemisia* is applicable to the genus *Chrysanthemum*.

The necessary compost, and which I find to be the best, is composed of one half good sandy loam, from old pastures, which has been laid in a heap for four or six months previous to using; one quarter two-year-old, well rotted, horse manure, and one quarter vegetable mould; to this, for some of the more delicate varieties, a little sand may be added. The turf should be well broken up and well mixed with the manure and vegetable

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\* They will also be limited to the cultivation of the shrubby species—the tuberous rooted, and, indeed, a few of the shrubby species, as *P. tricolor*, requiring rather different management, upon which, perhaps, I may at some future time send you a few lines.—T. H.

mould; it should then be raked over two or three times, to remove such parts of it as may not have been broken fine enough: sifting gives more labor, and does more harm than good, except for cuttings.

The time when I generally put in my cuttings is the month of August, although the month of June will do as well; cuttings put in in July do not do so well, owing to the great heat of that month. I prefer the month of August, because the plants generally produce better cuttings at that time, and they do not have to struggle against the heat so much as those put in in June, for then the weather gets warmer; whereas it gradually gets cooler after the second week of August: the month of June may answer very well in the neighborhood of Boston, as the summer is generally much cooler there than here.\* The cuttings should be about four inches in length, and should be taken off with a heel, if possible, and cut smoothly across with a sharp knife, and divested of all but the two or three top leaves; they should then each be put into a No. 0 pot, [called number one's around Boston,] holding about half a pint, filled with the above mentioned compost, well sifted, and a little sand mixed with it: after being moderately watered with a fine rose they are to be put into a moderate hot-bed, the sashes of which must be kept down and no air admitted, except when it is necessary to water them, which should be done moderately for a week or ten days, observing to shade them whilst the sun shines upon the frame; after ten days' time air may be gradually admitted, and, at the end of four or five weeks from the time of putting them in, they will be well rooted; they are then to be put into No. 1 pots, [number two's around Boston,] and placed in a cold frame until they are housed for the winter.

The house in which they are placed should be kept cool, the temperature not to exceed 40° or 43°; the plants should have plenty of air, plenty of light, and plenty of room, and should be but *sparingly watered*; particular attention to these particulars is necessary, for if the house is kept too close, and too warm, and too much water given, the plants will begin to grow and become drawn; they must just be kept in *statu quo* until they are put into the forcing house, of which I am now about to speak. About the 15th of January some of the plants are to be shifted into No. 1 pots, [three's around Boston,] and placed in a house having a minimum temperature of 50°, where they must be kept *near the glass, have plenty of air, plenty of room, plenty of light, and plenty of*

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\* Very little. The difference between the temperature of the month of July of Boston and vicinity, and New York, is trifling. The growing season is nearly two months longer around New York, but it is very little warmer.—*Cond.*

*water*; they must be particularly attended to at this time, so that they may not receive any check, from want of water, air, or heat, as it would injure them materially; they must also be frequently turned to the light, and their dead leaves taken off, as they are very impatient of foul stagnated air, which, crowding them together, and leaving on the decayed leaves, is sure to produce. This lot of plants will be in bloom about the 20th or 25th of February.

About the 1st of February another lot should be potted off, and the same course pursued as with the first; and thus, by potting a lot every two weeks till the middle of April, and bringing them from the green-house to the forcing house, a constant succession of bloom may be kept up till July. In the middle of April those left in the green-house should be repotted: there will be no need of putting these into the forcing house, as the increased temperature of the house will be sufficient for them. It is not necessary that the plants should be as near the glass when in bloom as when in a growing state; if the construction of the house admits of it, a shelf on the back wall, or hanging within two feet of the rafters, is a good situation for them; they can be removed from thence, and placed upon the lower staging, when in bloom, and their place upon the shelf supplied by another lot. After the plants have done blooming the flower stems should be cut out, and they should have a top-dressing of the compost, and be placed in the open air, where no particular attention to them will be requisite: those first brought into the forcing house will furnish cuttings which can be put in, in June, but the greater part will not be fit for that purpose till August. I do not think it advisable to keep the plants over to another season, as they will take up a great deal of room in the forcing house; should this not be an object, some of the best sorts can be preserved: they should have a second top dressing in September, and, when housed, receive the same treatment as in the previous season, only shifting them into larger sized pots; generally, however, cuttings put in in June will be strong enough to put into No. 2 pots when put into the forcing house. Cuttings of the roots furnish very fine plants, generally being more bushy than those made from the top: in making them, pieces of the root about as thick as a straw, and about two inches long, are made use of; these are to be put, two or three into a No. 1 pot, with about a quarter of an inch of the thickest end above the surface of the mould; they are to receive the same treatment as other cuttings, over which they have an advantage, as they can be put in earlier in the season, and thus produce larger plants, where that is desired. The great advantage of the above treatment is, that a person having but a small place, can have a collection of fifty or a hundred varieties, and duplicate plants of



each, without taking up much room, and he can also always have a constant succession of bloom for five months in the year.

The *rationale* of this mode of treatment is simply imitating their natural climate—the south of Africa—where the earth, for some months in the year, is dried up for want of rain, and vegetation nearly ceases until the rainy season commences, when the plains again become covered, as it were, with a carpet composed of multitudes of plants, displaying all the variety and brilliancy of coloring with which the vegetable kingdom is adorned. This mode of allowing them a season of rest, or rather starvation, only giving them enough of moisture to keep them alive, is generally adopted by the London growers. Cattleigh, one of the greatest growers for that market, adopts it entirely; he keeps his plants in winter, (the weather, at that season, being much milder there than here,) in the open ground, driving stakes around them, and putting cross pieces from one to another, covering them all round and over with a thickness of four to six bass mats, uncovering them once a week, for the purpose of watering them; in this way they are kept excluded from light and air, until they are repotted and put into the forcing house. Gaines, Dennis, and nearly all the other growers, keep them in frames and green-houses, in the way I have described. It may be objected that there is too much trouble attending this mode, but upon trial it will be found amply to repay it,—for instead of the long legged, ugly looking plants, which we generally see, we shall have fine, dwarf, healthy plants, with large foliage, and large umbels of brilliant colored flowers, with the beautiful pencilling which is peculiar to this lovely tribe of plants, strongly and well defined.

It may be because I am a great admirer of this plant, but I really think there is no green-house exotic which so amply repays the care bestowed upon it as the pelargonium,—there are none which display such a variety or contrast of colors, comprising the purest white, the most delicate blush imaginable, the richest crimson, the most brilliant scarlet, velvety purple, fiery orange, or the finest rose or pink, contrasted with beautiful purple, black, or white spots and pencillings, some combining two or three of these colors, almost equalling in beauty the exquisite coloring and tinting of the *Cereus speciosissimus*; others again having a bizarre and unique appearance, the petals being of different colors. A good collection of pelargoniums, well bloomed, forms a *coup d'œil* well worth going a hundred miles out of one's way to see.

Yours, respectfully,

THOMAS HOGG.

*New York, July 18, 1837.*

**ART. IV.** *Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some Account of those which it would be desirable to introduce into our Gardens.*

*Edwards's Botanical Register*, or Ornamental Flower Garden and Shrubbery. Each number containing eight figures of Plants and Shrubs. In monthly numbers; 4s. colored, 3s. plain. Edited by John Lindley, Ph. D., F. R. S., L. S., and G. S. Professor of Botany in the University of London.

*Curtis's Botanical Magazine*, or Flower Garden Displayed, containing eight plates. In monthly numbers; 3s. 6d. colored, 3s. plain. Edited by Sir W. J. Hooker, L.L. D., F. R. A., and L. S., Regius Professor of Botany in the University of Glasgow.

*Paxton's Magazine of Botany*, and Register of Flowering Plants. Each number containing four colored plates. In monthly numbers; 2s. 6d. each.

*The Horticultural Journal*, *Florist's Register*, and *Royal Ladies' Magazine*. Dedicated to the Queen, Patroness, the Rt. Hon. the Earl of Errol, President, and the Vice Presidents of the Metropolitan Society of Florists and Amateurs. In monthly 8vo numbers, with a plate; 1s. each.

*Notes relating to Floriculture.*—Dr. Lippold, of Belgium, has gone out botanical collector, and has sailed for Madeira and the Canary Isles. He goes out by the aid of subscribers, the price of each subscription being £5, and each of the subscribers to receive a certain proportion of the seeds, plants and dried specimens. If a sufficient number of subscriptions are sent in, Dr. Lippold will proceed, after exploring Madeira and the Canary Isles, to Madagascar, which is his ultimatum. It has been the greatest wish of Dr. Lippold to go out botanizing in an extra-European country, for the last twenty-five years. Among the subscribers are Sir W. J. Hooker, Dr. Graham, Messrs. Loddiges, &c. Many rich additions will undoubtedly be made to the collections of Britain. (*Gard. Mag.*)

## DICOTYLEDONOUS, POLYPETALOUS, PLANTS.

### *Ranunculaceæ.*

#### CLEMATIS

*cærules Siebold* syn: *C. cærules grandiflora* of *Collections*. Violet Clematis. A hardy perennial climbing plant; with violet colored flowers; appearing in October; a native of Japan. *Bot. Reg.*, 1855.

“ Nearly related to *C. florida*, from which it differs, not only in the color, delicacy, and transparency of its blossoms, but also in its leaves, being only once ternate, and in the sepals' not

touching and overlapping each other at the edges." This is an exceedingly graceful growing species, with very large flowers and deep purple stamens, "more ornamental than those of any species of *Clematis* yet in this country [England]." The *C. florida* is in several collections in this country, but it is inferior to this; like the former, however, it is a native of Japan, from whence it was introduced to the European gardens by Dr. Van Siebold, the indefatigable investigator of the Flora of that country. It will undoubtedly prove as hardy as the *florida*. "A free growing and profuse blooming plant." It was received from Belgium by Messrs. Lowe & Co., of Clapton, in whose collection it flowered in October last. Messrs. L. & Co. have another very distinct one, called *bicolor* or *Sieboldi*. (*Bot. Reg.*, May.)

### *Papaverdæa.*

**PLATYSTIGMA** *Benth.* (from *platys*, broad, and *stigma*.)  
linear *Benth.* Linear-leaved *Platystigma*. An annual plant; growing about a foot high; with white and yellow flowers; appearing in summer; a native of California. *Bot. Reg.*, 1864.

"One of the prettiest of all little annuals, with its graceful cups of white and yellow, resembling those of a *ranunculus*, but far more gay." The leaves are linear, opposite; the peduncles solitary, axillary, and terminated with single, nearly erect flowers, some of which have six, and others eight petals. It was originally found in California, by Douglas, but he did not send any of the seed to England. It has recently been received at St. Petersburg, from the Russian settlements in California, and from thence has found its way into the English gardens. The damp summers of England, however, Dr. Lindley fears, will prevent its ripening seed with any certainty. It would probably flourish freely in our climate. (*Bot. Reg.*, May.)

### *Onagræa.*

**FUCHSIA**  
*globosa* var. *elegans* *Elegant globe-flowered Fuchsia*. A green-house plant; growing from a foot to eighteen inches high; with crimson flowers; appearing in the summer; a hybrid variety; increased by cuttings; cultivated in rich soil. *Par. Mag. Bot.* Vol. III. p. 75.  
[Mr. D. Don and Sir W. J. Hooker consider the *globosa* as only a variety of *macrostemma*.]

A most beautiful plant of this elegant genus, somewhat similar to the *globosa*, but with much larger flowers; the general habit of the plant is also "bold and elegant." It was raised by Mr. Silverlock, at his nursery in Chichester, where the drawing was taken from a plant in flower. Mr. S. states that he is certain of its being grown from seeds of the *globosa*, but he does not know with what other species or variety the flowers were impregnated, as numerous other crosses were made at the same time. Mr. Paxton adds that "of its being a fixed variety there is no doubt." This variety is easily grown in any rich soil, and freely increased by cuttings.

This beautiful family is too much neglected in our gardens;

it is true we occasionally find the *globosa*, *gracilis*, and one or two other varieties or species, but we have few of the fine ones which have been produced from seed by the experiments of the English amateurs, with the tribe, within the few past years. Nor does their cultivation appear to be understood; generally speaking the plants are mere stunted branchy shrubs, with a few flowers, and yellow sickly foliage. We have seen the *gracilis* in one or two collections grown to the height of five feet, and it was then a superb object; but such specimens are rare, and where a plant is found of this size, ten may be found which are not a foot high. All the species and varieties are valuable for planting out in clumps, in the border, or in beds by themselves, where they flower abundantly the whole season. They are so easily raised that we hope to see them in every garden having any pretensions to beauty.

*F. tenella* and *Youngi* var. *grandiflora* are now both blooming at Mr. Towne's, in Snowhill Street, Boston: the latter is said to be very splendid, and one of the best that has been raised.

#### *Rosaceæ. § Pomeæ.*

**STRANVÆSIA** (The Honorable Wm. Fox Strangways, F. R. S., is so well known in this country for a learned and indefatigable investigator of the Flora of Europe, as to render superfluous any justification of the name now proposed for a most distinct and remarkable genus.—*Lindley.*)

*glaucescens* *Lindl.* syn: *Crataegus glauca* *Wallich* Grey-leaved Stranvæsia. A green-house shrub; growing upwards of twelve feet high; with white flowers; appearing in June: propagated by grafting or budding upon the common thorn: a native of Nepal. *Bot. Reg.*, 1856.

This is a very beautiful new evergreen, which was first brought to England by Dr. Wallich, ten or eleven years since, and placed in the garden of the London Horticultural Society, under the name of *Crataegus glauca*; it has been extensively distributed, and is now quite common in the private collections and nurseries of Britain. "In the neighborhood of London the species is scarcely more hardy than a myrtle, but it grows very well against a wall, when it is protected, and in such a situation it flowers in the month of June." Its worst habit is its pushing too early in the spring, which exposes it to damage by frosts; and this is said to happen in its native country, as the dried specimens distributed by the East India Company appear to have suffered by some such accident. It is a tree of medium size, evergreen, leaves coriaceous, lanceolate, acute, and serrated, something like those of *Photinia integrifolia*; flowers white, in dense, many-flowered corymbs, which must have a beautiful appearance. The genus is one of the most remarkable in the sub-order *Pomeæ* of *Rosaceæ*, in consequence of its truly capsular five-valved fruit, resembling a pomme only so far as the fleshy calyx is concerned. In no other pomeous genera is there any tendency to a separation of the capsules into valves. (*Bot. Reg.*, May.)

This species will prove a valuable hardy plant south of the Potomac, and would be a desirable one to grow in pots, in the

green-houses of the Middle and Northern States. It would be a pretty counterpart to the well known and generally admired *lauristinus*, and, like the latter, would undoubtedly be an eligible plant for cutting for bouquets during the winter season. Perhaps it may acclimatized to the Middle States, particularly to the city gardens.

#### CRATÆGUS

*coccinea* L. syn. *C. glandulosa* Willd. *C. glandulosa* var. *macracantha* Bot. Reg., 1912. *C. macracantha* Lodd. and Loud. Arb. Brit. Scarlet-fruited Hawthorn.

*C. glandulosa* of Willdenow, DeCandolle and Loudon, is the same species as *C. coccinea* of Linneus. *C. sanguinea* of Pallas, referred to *C. glandulosa* by Willdenow, DeCandolle and Loudon, is distinct from *C. coccinea*, in its want of glands upon the calyx and petioles, as well as in its country and habit.

*C. glandulosa* of Aiton, referred by Willdenow, DeCandolle and Loudon to *C. coccinea*, mis-called *glandulosa*, is a totally different species, and may be the same as *C. spathulata*.

This is the same species as that noticed at p. 172 as the *C. glandulosa* var. *macracantha*. Dr. Lindley states that when this species was figured under the name of *C. glandulosa* var. *macracantha*, it did not occur to him to look very particularly into the synonymes, his object being "chiefly to publish a figure of the species under some recognised name, the critical inquiry into the entangled synonymy of the whole genus *Cratægus* being left for a special discussion, by whomsoever might be disposed so to amuse himself." Dr. Asa Gray, however, has addressed Dr. Lindley upon the subject, and informed him that "it is one of the most common species in the Northern States, and is familiar to every one [to botanists only, rarely to an amateur.] It is the *C. pyrifolia* Torrey, and, as supposed, of preceding authors." But Dr. Lindley thinks that *pyrifolia* was written for *coccinea*, for he has dried specimens from Dr. Torrey himself, marked "*C. coccinea* auct. Amer. *C. pyrifolia* ? Common near New York."

This confusion of names arose with Willdenow, who "first copied the specific character of *C. glandulosa* from the *Hortus Kewensis*, and then added *C. sanguinea* of Pallas as a synonyme; hence the latter plant and the *C. glandulosa* became identified in the eyes of systematic writers, and a fresh character was contrived, to suit the erroneous combination." Professor DeCandolle, not having studied the genus, transferred the error to his *Prodomus*, "which has given rise to some of the most extraordinary confusion in writers who shall be nameless." The above synonymes help to adjust the matter in a degree. (*Bot. Reg.*, May.)

*Cratægus spathulata*.—Dr. Gray has sent Dr. Lindley some criticisms upon this species, also noticed at p. 172. They are as follows:—"I am not convinced of the correctness of the view you take respecting the *C. spathulata* Michx. and the *C. virginica* Loudon. I have before me specimens of *C. virginica* Loudon in various states, from North Carolina to Florida; and of the true *C. spathulata*, as it is considered by American botanists, (your *C. microcarpa*,) from Georgia, New Orleans,

Texas, and Arkansas. The specimens exhibit the various diversities in foliage for which the plant is remarkable. The species is well known to our botanists, and the reason of its being altogether omitted from the floras of Torrey, Hooker and Beck, is, that the works alluded to are confined to the botany of the Northern States and British America; whereas the above mentioned species does not grow north of Virginia." Dr. Gray then gives several reasons for considering the *C. microcarpa* Lindl. *Bot. Reg.*, 1846, (see vol. II, p. 257,) the same as the original *C. spathulata*. Dr. Lindley, however, adheres to his former opinion, which he shows to be correct, by reasons which outweigh the objections of Dr. Gray. (*Bot. Reg.*, May.)

In the text to *Stranvæ'sia glaucescens*, Dr. Lindley has added some information upon the pomeous *Rosaceæ*, which, though they have undergone some examination since the year 1820, when he first revised them, have never received much original criticism. The following is the substance of his remarks:—

#### ERIBOTRYA.

"*E. ? cordata* and *E. obtusifolia* do not belong to the genus; they are much nearer *Cotoneaster*, having sub-parietal carpels. But their petals are longer than is usual in *Cotoneaster*, and there is only one ovule in each cell. I therefore think they may be safely separated, as a peculiar genus, to which the name of *Hesperómeles* (or Western apple,) will not be inappropriate.

#### PHOTINIA.

This must be divided into two sections, until an examination of the fruit of the second section shall show whether it is not rather a separate genus, viz.

§ *Euphotinia*: ovary, complete, bilocular.

*P. serrulata* Lindl.

*P. prunifolia*, quite distinct from *serrulata*, in the leaves being glandular on the under side.

*P. arbutifolia* Lindl.

*P. arguta* Wallich.

§ *Myriomeles*: ovary, semibilocular.

*P. pustulata*.

*P. integrifolia* Lindl. (came with the specimens of *Stranvæ'sia glaucescens*, from Dr. Wallich.)

*P. eugenifolia* Wallich.

*P. dubia*—unless it be distinct; its proper place cannot be decided until an examination of the fruit can be made."

#### Carophyllaceæ.

Some beautiful new seedling pinks have bloomed this season around Boston. Messrs. Walker and Miller of Roxbury, and Mr. Wilder of Dorchester, have several which are exceedingly fine. Mr. Miller has four or five which, we believe, he has considered as deserving of names. Mr. Walker has already given the following names to his best ones, viz:—

Walker's *Cushingtônia*, Estelle, Col. Wilder, *Othello*, *Claudius*, *Mary Louisa*, and *Néales*.

*Cushingtonia* (which we hope, however, Mr. Walker will alter to Mr. Cushing's pink,) in compliment to J. P. Cushing, Esq., of Belmont Place, Watertown, one of the greatest patrons of gardening in the country, is a very fine one, and we are glad Mr. Walker has set the example of naming flowers in compliment to the patrons and amateurs of gardening, of which our country can already boast of a great number. Mr. Wilder has also raised some fine ones, but he has informed us that he shall grow them another season before he shall give them any names. Mr. Miller has also given one of the best of his the name of Daniel Webster. The lovers of this beautiful and fragrant flower must be gratified to see the zeal which is manifested in the raising of new varieties. Another season we shall look forward to a "pink show" of great interest.

## DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

### *Cinchonaceæ.*

*GARDENIA* (named in compliment to Dr. Alexander Garden, physician, of Charleston, S. C., and a correspondent of Linneus.)  
*pancea* Lindl. Cloth-leaved Gardenia. A stove shrub; growing four or five feet high; with straw colored blossoms: appearing in June; a native of South America. *Bot. Reg.*, 1858.

A new stove shrub, with the habit of the other species, but with very large, long, rugose leaves, and with terminal clusters of long tubular flowers, of a straw color on the inner, and a yellowish orange on the outer, side of the petals. It was introduced, some years ago, to the London Horticultural Society's garden, where the present drawing was taken, three years since. Like a greater part of the "woody inhabitants of the tropics, it seldom produces flowers in this country." It is scarcely worth introduction; the flowers are destitute of fragrance, and the foliage coarse and unhandsome. (*Bot. Reg.*, May.)

### *Polemoniaceæ.*

*Leptosiphon androsæceus* and *densiflorus*, as will be seen in another page, have been exhibited at the Horticultural Society's room. We have several plants in bloom, all of which are charming, with their clusters of flowers of various shades, from white to blue. They flower freely, but prefer a cool situation, and flourish better when planted in early spring, than when the same is delayed until May.

*Phlox Drummondii*.—The Hon. and Rev. Wm. Herbert, in a note to Dr. Lindley, in the *Botanical Register*, states that this species never ripens seeds with him, but that it is "easily multiplied and perpetuated by pipings, in sand, on a warm flue. A piping from the flowering umbel makes as good a plant as any other part of it, though it may have only flower buds when set."

### *Schrophulariaceæ.*

*Russelia junceæ*.—See vol. I, p. 426. A figure of this most

beautiful plant is given in *Paxton's Magazine*, to the description of which is appended some remarks upon its cultivation, which we extract, as the species is now in the collections of this country. "To grow it well, an atmosphere between that of a stove and a green-house seems to suit excellently. The plant at Chatsworth was grown in the succulent house, where the thermometer ranges between 50° and 60°, except in the summer, when it of course, in hot weather, rises higher. It delights in good sandy loam, mixed with about one third peat and a little sand. It should have plenty of pot room, and, when growing, a good supply of water. It is advantageous, in growing plants of this species, to syringe them frequently, in order to prevent the appearance of insects, as they are rather subject to the ravages of these intruders, if not attentively watched." Plants are freely raised from cuttings, in sandy mould, in a little bottom heat. (*Pax. Mag. Bot.*, May.)

We have now this plant coming into bloom; it is yet small, but the beautiful crimson scarlet tubular blossoms, so profuse upon almost leafless branches, have an exceedingly fine effect. It is a valuable plant for planting in pots, and then suspending the latter from the ceiling of a room or a green-house. Mr. Paxton gives a figure, in which the tiny branches hang slenderly upon either side of the pots, producing dense clusters of elegant blossoms.

*Collinsia atrophylla*.—This is the name under which the flowers of a collinsia were exhibited at a late meeting of the Massachusetts Horticultural Society. The plants were raised from seeds, received from Mr. Nuttall, who gathered them in California last year. From the specimen, which was weak, we could not form a correct opinion of its beauty, but it appears to possess superior claims to the pretty *C. bicolor*; the flowers have a white ground, like the *bicolor*, but the lower part of the corolla is exquisitely marked with spots of dark purple, which give it a brilliant appearance. Its habit of growth is, we believe, similar to the other. It is an annual.

*Mimulus cardinalis*.—We have a plant of this species in full bloom. It is upwards of five feet high, and is covered with its brilliant scarlet blossoms. It is by far the most ornamental of all the species, and is deserving of cultivation in every collection of plants. It is raised from seed, suckers or cuttings.

#### *Solanaceæ.*

*Nolana atriplicifolia*.—We have now in bloom a very pretty annual, which we received from an amateur, under this name, who received the seeds from London last season. Like the *N. prostrata*, it is a trailing species; but in place of the small inconspicuous blossoms of that plant, the *N. atriplicifolia* has large, ele-



gant, showy flowers, two inches in diameter, very nearly resembling the common and beautiful *Convólvulus minor*, both in its colors, which are blue and white, and in the size of the corollas. It has not the coarse foliage of the *Convólvulus minor*. Together with the *Nemóphila insignis*, it will be a valuable plant for winter culture, in the green-house, at which season the flowers will remain in perfection a much longer time than during the hot weather of our summers. It probably seeds freely, and will undoubtedly be generally cultivated another year.

## MONOCOTYLEDONOUS PLANTS.

### *Orchidæceæ.*

#### *LÆLIA*

*anceps*. Two-edged *Lælia*. A stove epiphyte; growing about a foot and a half high; with rich purple flowers; appearing in December; cultivated in peat earth and broken potsherds; a native of Mexico. *Pax. Mag. Bot.*, Vol. IV, p. 73.

One of the most lovely of this curious, interesting and splendid tribe of plants. The flowers appear on a scape, a foot and a half high, in pairs; the sepals, five in number, are of a rich rosy lilac; and the lip is of the richest purple tint. Mr. Paxton considers this plant fully "equal, if not superior, to any thing known among the orchideous tribe." Dr. Lindley states, in his description, in the *Botanical Register*, 1751, "when we have said that it is equal in beauty to any of the cattleyas; that it has a far more graceful mode of growth, in consequence of the length of its slender scaly stems, from the point of which the flowers spring; and that it diffuses an agreeable fragrance, we shall have said that it is one of the most interesting of the tribe that has yet made its appearance."

In cultivation it prefers a hot and rather humid atmosphere, and to be placed in a situation where it will not receive the direct rays of the sun: it should be potted in peat soil, mixed with broken potsherds, and the leaves sprinkled occasionally with warm water in the afternoon. It should be introduced to the gardens of this country. Now that the experiment has been fairly tried of importing plants in glass cases, and there is no longer doubt of their being received with safety, (p. 276,) we hope all the fine epiphytes will be imported. (*Pax. Mag. Bot.*, May.)

*PERISTERIA Hooker* (A dove: the column in the original species, *P. elata*, resembles a dove hovering with expanded wings.)

*cerina Lindl.* Waxed Dove-flower. A stove epiphyte; growing six inches high; with pale yellow flowers; appearing in June; a native of the Spanish Main. *Bot. Reg.*, 1853.

Allied to *P. pendula* of the *Bot. Mag.*

A very pretty species of this very curious genus. The scape is short, pendulous, and terminated by a dense raceme of from nine to ten flowers, each flower turning up. It is a native of the Spanish Main, and was imported by Mr. Knight, of the King's Road, in whose nursery the drawing was made. The flowers smell powerfully of juniper. (*Bot. Reg.*, May.)

**MEGACLIINIUM** *R. Brown*. (From *Megas*, large, and *klina*, a bed, in allusion to the broad, sword-shaped bed or rachis of the flowers.)

**maximum** *Lindl.* Largest Megacelinium. A stove epiphyte; growing a foot high; with pale yellowish-green flowers; appearing in August; a native of Sierra Leone. *Bot. Reg.*, 1859.

Another species of this singular genus, the first of which was published five or six years ago. Some time after, Dr. Lindley found the imperfect remains of another in the Banksian herbarium, and, through the exertions of the correspondents of the Messrs. Loddiges, it has at last been introduced. It is not very remarkable for its beauty, but rather for its singular mode of producing its flowers, upon a broad bed or rachis. It is probably of easy cultivation. (*Bot. Reg.*, May.)

#### **ONCIDIUM**

**citrinum** *Lindl.* Lemon-colored Oncidium. A stove epiphyte; growing about a foot and a half high; with lemon colored flowers; a native of Trinidad; introduced in 1835. *Pax. Mag. Bot.*, Vol. IV, p. 77.

A very handsome and rare species, "highly worthy of a place in the most select collections, on account of its bold appearance and pretty lemon-colored flowers." It is described as having a simple stem, not branched: flowers pale lemon color, very distant from each other: the crest of the lip consists of about eight warts, which are slightly downy: the stigma is nearly orbicular. The leaves of the pseudo-bulbs have a singular yellow tint. It is rather difficult of cultivation, requiring a hot humid atmosphere, and particular care should be taken never to overwater at the roots. It was introduced by the Messrs. Loddiges, from Trinidad, and flowered in their fine collection. (*Pax. Mag. Bot.*, May.)

#### *Liliaceæ.*

#### **LACHENALIA**

**pallida** var. **ceruléscens** *Lindl.* Blue-flowering pale Lachenalia. A green-house bulb; growing a foot high; with pale blue flowers; appearing in February; a native of the Cape of Good Hope. *Bot. Reg.*, 1945.

A very pretty variety of the lachenalias, which are but seldom seen in the collections of plants of this country. The flowers are numerous, upon a very erect stem, and are of a pale blue on the inside, and a deeper tint on the outside, of the petals. The specimen was received from the Rev. and Hon. William Herbert, who says that there are three distinct states of this species. Introduced from the Cape of Good Hope. (*Bot. Reg.*, April.)

The only two species which are, we believe, cultivated around Boston, are the versicolor and quadricolor: we hope, however, that so pretty a family will receive more attention. They are easy of cultivation.

#### *Araceæ.*

**PHILODENDRON** *Schott* (from *Philo*, to love, and *dendron*, a tree; in allusion to the habit of the plants of this genus to overrun trees in the South American forests.)

**crassinervum** *Lindl.* Thick-ribbed Philodendron. A stove climber; growing twenty or thirty feet high; with white flowers; appearing in December; a native of Brazil. *Bot. Reg.*, 1858.

"This is one of the extraordinary climbers, which, in tropical

forests, lay hold of the trunks and limbs of trees, fix themselves upon their bark, root on their surface, often twine round and strangle them in their embrace, or sometimes hang down like cords or cables, from tree to tree, contributing, along with wild vines, bauhinias, and other powerful twisting leguminaceous plants, aristolochias, passion flowers, and the like, to render the forests impassable." The plant has a very stout, strong stem, from the joints of which issue the roots, which cling to the trees for support. The flowers, which are white, arise from the axils of the leaves, and somewhat resemble a caladium, to which genus this species formerly belonged: "Caladium," however, "like many of the genera of the botanists of the last age, was a heterogeneous assemblage of various plants, having only a sort of *prima facie* resemblance; it is now confined to certain tuberous kinds, while the caulescent species go into other genera, of which Philodendron is one."

This plant, Dr. Lindley states, "in its organs of vegetation constitutes a case of excessive development, in part arising out of high heat, light and moisture, and in part dependant upon its own specific nature. The strong stem that bears its leaves and sheathes is the same part which, in the European arum, remains under ground, in the form of a round leafless tuber. When it is concentrated, as in the latter case, it contains a large quantity of nutritious fæcula, mixed with an acrid principle; while in a diffuse state the fæcula disappears, and the acrid part alone remains. Hence the arborescent araceous plants are simply dangerous and nutritious, or, the dangerous parts being removed by washing, simply nutritious." It is a native of Brazil, and requires stove cultivation: the specimen was received from the Rev. Frederick Beadon, in December last. (*Bot. Reg.*, May.)

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#### ART. VI. *Calls at Gardens and Nurseries.*

*G. C. Thorburn's, Ravenswood, L. I., New York.—June 22d, 1837.*  
Mr. Thorburn has just commenced the erection of a geranium house at his garden at this place, connected with his seed-store in the city, which is to be devoted almost exclusively to the cultivation of this very beautiful and fashionable tribe of plants, the new varieties of which are so much superior to anything heretofore produced. We are exceedingly glad that Mr. Thorburn has become so much interested in this family as to cause the erection of a house for them alone; for we are convinced, that, when a superb collection is seen in full bloom, and the plants *properly* grown, no gentleman who can appreciate the beauty of a plant, and has the means within his power, would be contented until he had added to his other structures for growing plants and flow-

ers, one for the cultivation of geraniums alone. It is useless to pretend to grow geraniums to any degree of perfection in an ordinary greenhouse, mixed in with all sorts of plants; the great abundance of air which they require, and the necessity of placing them near the glass, both of which cannot be done in a greenhouse filled with other plants, are obstacles to their healthy growth, when in such a situation. Mr. Hogg has set the example, having for a long time kept his collection in a house adapted to their growth; and Mr. Thorburn is now following his example. New York may, therefore, be said to lead in the cultivation of the geranium, which, as yet, has received but slight attention at the hands of amateurs or nurserymen around Boston. Mr. Thorburn has a superb collection of plants, and, with the additions which he has made the past spring, it will equal if not excel any other in the country. Several of the new kinds we noticed in bloom, but did not have an opportunity to note down their names. Messrs. Dennis & Co. have sent Mr. Thorburn all their finest ones.

We found Mr. Macintosh, the gardener, making great preparations for setting out dahlias; he had already planted upwards of two thousand; and it is the intention of Mr. Thorburn to set out upwards of ten thousand plants. The pressure of the times has affected the business of the nurseryman as well as other trades, and the demand for dahlias has been exceedingly limited; consequently a greater number remain on hand. One of the greatest displays may be anticipated that was ever made in this country, as Mr. Thorburn's collection embraces nearly all the fine ones which have come out in England this season.

In the garden the roses were in full bloom, which is about a fortnight sooner than they flower in the vicinity of Boston. A bed of double dwarf rocket larkspurs, from seeds sown in the fall, made a magnificent display, some of the spikes being a foot in length. We would not have those of our readers, who appreciate this plant, forget to sow the seeds the coming fall. It is one of the most showy annuals. The plants were all removed from the greenhouse and stove, with the exception of a few geraniums, and but little of interest was to be seen.

*Noe & Boll's, 6th Avenue.—June 22d.* We found the fine collection of roses here in full bloom, although the height of their beauty was past. We have before mentioned, in speaking of this place, (p. 124,) that it contained one of the best collections of roses in the country. What is remarkable is, that not any of the *tree* roses were destroyed by the severity of the winter, while in the vicinity of Boston they were nearly all destroyed, both stock and scion. That the winters have a much more severe effect on vegetation around Boston than in New York there is not the least doubt; for we have repeatedly seen so many evidences of it ourselves, that we are wholly satisfied in this respect. Many plants which in the former place need entire protection, live in the latter without the least whatever. In the garden of Mr. Panton, in the city, *Magnolia conspicua* has stood out upwards of six years, and has produced a great number of flowers for the last two or three seasons; it has never been injured in the least. We have also noticed the *Wistaria Consequana*, which has stood out here, (p. 274.) In New York the roses were only protected with a little straw around the tops. But such protection would be of no use whatever around Boston; covering both the stock and grafts with three or four inches of leaves, hay, or strawy manure, is the least which can be done with a certainty of insuring them safe from the effects of the severe weather.

But to return to the roses. Some of the finest of the hardy ones were the crested moss, white moss, flesh colored moss, perpetual *Lodoiska*, *Madame Hardy*, and *belle Faber*; the crested moss was particularly splendid, having a very singular crested appendage attached to the

calyx, which constitutes its beauty. Madame Hardy is a lovely white rose; perpetual Lodoiska is one of the most elegant of that class. We also found several noisettes full of flowers; among others, Lamarque, Triumf d'Arcole, (which, Mr. Boll informs us, is the same as the Jaune Déspréz of some English catalogues,) noisette Fellemberg, Amiée Vibert, &c.; the Lamarque was the finest specimen we have ever seen, and fully confirms the high character of this, the finest in truth of all the noisettes. A strong branch (its habit is very robust,) had been thrown up about three feet, which was terminated with a cluster of six fully expanded flowers, and six buds, which had just began to show color; each flower was larger than any of the moss roses, and some idea may be formed of its elegance, when six of such a size are collected into one bunch. This rose was sold, when first raised in France, for the sum of 3000 francs, (upwards of five hundred dollars :) the Amiée Vibert is very pretty, but will not compare with the Lamarque. We also saw, at this time, the Triumf de Luxemborg, of the tea family, in perfection. It is a most exquisite variety; the flowers are large, of globular form, the petals cupped, in the way of a provins rose, and of a buff and rose color. This rose also sold in France for 4000 francs. A great many others were blooming, but those that we have particularized here are the most choice and rare. Mr. Boll has a large number of hardy seedling roses; only a few of them had opened their blossoms, but one of these was a very fine variety. The whole collection is in most excellent order, and the management of the plants reflects much credit upon the skill of the cultivator. Mr. Boll has promised us some hints on his mode of growing roses, and our readers may anticipate some valuable information.

*Mr. Hogg's.—June 23.* The geraniums here had nearly passed their bloom, and were mostly removed to the open air, where they were displaying their flowers, though not in much perfection. We noticed, however, the flowers of several very choice new ones, for which Mr. Hogg's collection is so famous; several very elegant seedlings of his own raising were also in bloom, and two or three of them will be excellent additions to collections. We are glad to see this family attracting so much attention, and we doubt not but a few years will find our gardens enriched with American seedlings, equalling the most superb English varieties.

In the green-house we found several of the cactus tribe in bloom; among others the *Cereus speciosissimus* and *C. Jenkensoni*. Mr. Hogg has quite a collection, and they look in good health. A new fuchsia, (the name of which we forget,) was charming.

The roses in the garden were displaying their last flowers, of which there is here a large number of fine ones. Various herbaceous plants were also in bloom; and we noticed a bed of that pretty new perennial, *Gaillardia aristata*. But the greatest attraction at Mr. Hogg's, at this time, was a superb specimen of the exquisitely lovely Greville rose. A plant, with three tall branches about ten feet high, was covered with upwards of *sixty* clusters of its "flowers of all hue," making it literally one mass of roses. In some of the clusters we counted upwards of twenty-five buds and expanded flowers! What is remarkable is, that the plant stands the winter without any protection. It is decidedly equal to the character which was given of it, some years since, when it was first known in the gardens of this country. Mr. Hogg had planted out most of his dahlias, and they had already attained considerable size; a splendid display is anticipated around New York, as well as in the vicinity of Boston, the approaching autumn. We should not omit to mention, that for neatness and cleanliness, Mr. Hogg's grounds excelled any which came under our notice.

## REVIEWS.

ART. I. *Remarks on the Natural Order Cycadaceæ, with a description of the Ovula and Seeds of Cycas revolûta.* By A. J. DOWNING. Read before the Lyceum of Natural History, New York, and published in *Silliman's Journal* for April and May.

THIS is an exceedingly interesting and well written paper, upon a subject very little understood, viz. the germination of the Cycadaceæ, and formation of the seeds of the plants of this order. The various species flower so rarely that botanists have not had an opportunity to study the character of the order, and as yet the structure of the plants remains but partially known. This paper contains an account of the observations made by Mr. Downing upon a fine specimen of *Cycas revolûta*, which was produced last season in the garden of Mr. Knevels, of Newburgh, New York, upon a plant about thirty years old, which had flowered once previously. It is accompanied by a lithographic folio plate, which is necessary to the proper understanding of the description, and the reader who is desirous of seeing this paper entire we refer to Dr. Silliman's *Journal*. The prefatory remarks upon the order we copy, as exhibiting a brief account of all the observations that have been made upon it, by those botanists who have examined the plants.

"For a long time, those who examined this group of plants seem to have been more occupied with their external appearance, as exhibited in the fine pinnated foliage and simple trunk of *Cycas*, than with any minute investigation of the real nature of the reproductive organs. When, however, the plants of this order were attentively examined as to their germination, their mode of inflorescence, and especially as to the nature of those singular bodies denominated the female flowers, new light was thrown upon their characters and affinities. To that learned and most accurate botanist, Robert Brown, we are mainly indebted for those views which explain the true structure of Cycadaceæ, and establish an intimate relationship with the apparently very different group of plants known under the name of Conifereæ. These views were presented to the world in a paper read before the Linnæan Society of London, in 1825, on the 'structure of the female flowers in Cycadaceæ and Conifereæ.'" The elder Richard, in his admirable '*Mémoire sur les Conifères et les Cycadées*,' prepared about the same time, and published afterwards by his son, had indeed, with great ingenuity, established the affinity between Cycadaceæ and Conifereæ; but his views respecting the female flower and seed of both these tribes differ widely from those of Brown, and are now generally admitted by the first botanists to be erroneous. The female flower of these orders consists, ac-

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\* "Vide Appendix to Capt. King's Voyage, p. 22."

cording to Richard, of a monosepalous perianth or calyx, enveloping or adhering to an unilocular ovarium, which contains the true seed. He considers the aperture at the apex of the outer coat to be the style, and the projecting point of the second, the stigma. Brown, on the contrary, suggested that the calyx, &c. of Richard are but the membranes of the ovula, and in the mature state the integuments of the seed; in short, that the bodies called by Richard and other writers the female flowers, are *naked ovula*, borne upon the margins of a contracted leaf, which last may be considered as an imperfect and open ovarium. The impregnation he supposed to take place through the foramen of the ovulum, (the perforated stigma of Richard,) their being (contrary to the usual structure in phenogamous plants,) no style or stigma through which the pollen can find its way to that body. These ideas, so startling and paradoxical at first sight, were slowly received even by the most acute botanists, but have finally been almost universally adopted. The so-called naked seeds of Linnæus, having been demonstrated to be one-seeded fruits, it appears that the Cycadaceæ and Coniferæ alone have the peculiarity of producing truly naked seeds, and that they compose therefore a distinct natural group, to which the name of Gymnospermæ has very appropriately been given.

“Aside from an examination of the ovula themselves, and their integuments, the botanist who studies the structure of the organs of reproduction in Cycadaceæ, cannot but be convinced, that what were formerly called pistillate flowers are simply ovula in the first place, and afterwards naked seeds. The modified leaf, bearing the ovula upon its face or margin, is undoubtedly a carpellum in an imperfect state of development, the seeds of which would be enclosed in an ovarium, if the edges of that carpellary leaf were folded together in the usual manner. In *Cycas circinalis*, the ordinary appearance of the pinnated leaf is so far departed from as to exhibit, in fact, a flat, scale-like carpel, with the rows of ovula upon either margin, thus closely resembling an ovarium formed of a single carpellum, (such as a follicle or legume,) spread open. In *C. revoluta* the leaf is in a less altered state, having at the extremity contracted pinnated divisions; but the part occupied by the ovula is, as in *C. circinalis*, the margin of the leaf. If, therefore, the *pistillum* be a modified leaf or carpellum, from the edges of which are produced the ovula, as is now admitted by the first structural botanists, the envelopes of the bodies which constitute the female organs in Cycadaceæ and Coniferæ cannot be the calyx and ovarium, or indeed any thing else than the proper integuments of the seed; inasmuch as these bodies are produced upon the margins of the ovarium, the summit of which, if it were folded together, would become the style or stigma, and at the base, or surrounding which, would be found, perhaps, if in a state of sufficient development, the true floral envelopes. This argument receives additional force from the well known tendency of many leaves to produce upon their margins, either *buds*, (as in Bryophyllum and other plants,) which are in fact distinct individuals, or *ovula*, which are capable of becoming such by impregnation.”

The observations of European botanists have been generally made with the *C. circinalis*, the seed of which appears to be in a less perfect state of development than the *C. revoluta*.

The closing remarks of Mr. Downing will be read with interest; his conclusions respecting the order before us, are, that “it is evident that the so called female flowers and fruits in Cycadaceæ and Coniferæ are naked ovula and seeds, not only from their position; upon an imperfectly formed ovarium, (the convo-

lution of which has not taken place, and the seeds are consequently left naked upon its face or margin,) but from their similarity to other plants, in the structure of the seeds themselves, having the same integuments, the same foramina in the ovula and mycropyle in the mature seed, with only such slight deviations in structure as might be expected, from the peculiar economy of their orders."

"A resemblance in inflorescence, fructification, and seed, are not the only points of agreement between Cycadaceæ and Coniferæ. The simple cylindrical stem of the former, which resembles outwardly the trunk of the palms, (a Monocotyledonous order,) has been shown, by M. Brongniart, to be decidedly exogenous in structure—probably only growing in the form of a simple trunk, in consequence of the non-development of the axillary buds. The leaves of both the *Cycas* and the fir tribes, as Prof. Lindley remarks, have the same parallel arrangement of veins, and both tribes exhibit a marked similarity in the fewness of their spiral vessels. Cycadaceæ and Coniferæ still farther agree in a character lately discovered, as unique as it is important, and which alone would establish the fact of a strong affinity existing between the two orders; namely, the singular perforations in, or rather globules adherent to, the fibres of their wood, to which there exists nothing analogous in the structure of any other tribe of plants.\*

"Placed thus, as it were, at the lowest step, in the gradation of plants which have a vascular system and an exogenous structure, *Gymnospermæ* approach closely in their affinities to flowerless plants, through the Cycadaceæ, which have mostly the same gyrate veneration as the ferns, a manner of producing their seeds upon the margins of the leaves, analogous to the production of the thecæ in *Osmundaceæ*, and the same pinnated foliage and simple columnar trunks as some of the arborescent ferns. They are also related to *Equisetaceæ* by a similar simplicity of structure in the female organs, if the sporules of that singular order are really naked ovula, as is very plausibly suggested by M. Ad. Brongniart. At least the resemblance of those organs to the female flower of *Zamia* is in the highest degree obvious and striking.

"But the relation between the ferns and other flowerless plants, and Cycadaceæ and Coniferæ, as well as the importance of these orders in former times, can only be properly appreciated by those who have paid attention to fossil botany, and are acquainted, by means of that interesting science, with the primitive flora of the globe. In those remote ages, when ferns and marine Algæ, *Equisetaceæ*, and *Lycopodiaceæ*, with Cycadaceæ, Coniferæ, and a few palms, constituted the whole of the vegetable kingdom, these orders occupied a much more conspicuous station than at the present day. At that period, when, as geology has now incontestibly proved, the globe was tenanted by a '*race of reptiles*'—(those strangely formed animals, the aquatic and amphibious *Saurians*, which existed before the formation of the secondary strata,)—the vegetation of the earth was also in a corresponding primitive state of organization. Cellulares or flowerless plants covered the greater portion of the globe; among which were *Equisetaceæ* of enormous size,

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\* "So permanent is this characteristic, that geologists have recently through it identified Coniferous wood, which has been imbedded in the coal strata for thousands of years! Messrs. Nicol and Witham, by grinding down to very thin plates sections of fossil woods, have been able to call in the microscope to their aid, and have ascertained their structure in the most satisfactory manner. Their examinations have led them to the conclusion, that all known exogenous fossil woods belong either to Coniferæ or Cycadaceæ."



herbaceous and arborescent ferns, the latter of extraordinary altitude, and Lycopodiaceæ, an order now dwindled down to a few diminutive, moss-like plants, but which, it is thought by Brongniart, reached at that time the stature of our tallest forest trees. Associated with these, are found the first Coniferæ and Cycadaceæ, which compose a very considerable proportion of the flora of those remote ages; being probably the next advance in the ascending scale of vegetable structure. In the ferns and other flowerless plants, we find the reproductive organs either obscure or imperfect; and in the next succeeding step, (the Coniferæ and Cycadaceæ,) those organs, though distinctly characterized, are still formed in the most simple manner, and accompanied with a corresponding simplicity in the structure of the wood, the leaves, and the whole vegetable system. As also we perceive the remains of the carnivorous and lacustrine *mammalia* succeeding in a later formation to those of the more primitive animals, so we find the palms, some of the Liliaceæ, and many Dicotyledonous plants, gradually assuming their respective places, just as the improving condition of the globe became more fitted to their respective organizations. In this way the *history of the earth* is unfolded to us; and such are the proofs perpetuated and unchanged through centuries of time, which show that it is through successive ages, and by a slow and gradual series of changes, that the globe has acquired its present more perfect state; and that both departments of organized matter have advanced with equal steps and mutually dependent relations to that condition (perhaps still progressive,) in which they are found at the present moment."

## MISCELLANEOUS INTELLIGENCE.

### ART. I. General Notices.

*Influence of Vapor on vegetation.*—Messrs. Edwards & Colin have read, at the Academy of Sciences, a third memoir on the influence of vapor on vegetation. They observed, first, that the grains of winter wheat did not germinate in air, because they were not saturated with moisture; but that the germination, which, where the grains are saturated with moisture, takes place in about eight days, happens in from sixteen to twenty-four hours, if the grains are partly plunged in water. From much experience, they have discovered that a temperature nearly constant, (for example, that of a cellar of 50° Fahr.,) is better for germination than a more elevated, but variable, temperature, since the variation of temperature prevents the air from being constantly saturated with moisture. It is worthy of remark, that the grains absorb more water in the latter case than when exposed to the uniform temperature of a cellar. There are two conditions necessary for germination to take place in the air; first, a certain proportion of water in the grains; and secondly, that the air surrounding them be in a peculiarly moist state.

In air thus charged with moisture, the grain commences by absorbing water; and, when it has absorbed a sufficient quantity, if the temperature is constant, the air, still saturated with vapor, keeps the external membrane in a state of humidity favorable to vegetation. If the hu-

midity of the air varies, then the external membrane is not humid enough to perform its functions.

Messrs. Edwards & Colin have studied, according to their principles, the effect of the different kinds of humid soil on germination; and, finally, they have determined the effects of air saturated with vapor on vegetation, and have arrived at the result, that this is the condition of the air the most favorable for almost all plants.

In confirmation of this view, they have cited the observations made at Havana, by M. De la Sayra, and the practice of the stoves in England; where, by saturating the air with vapor, pine apples are obtained, of the weight of eight pounds. (*L'Echo du monde savant*, April 12, 1837, translated into the *Gard. Mag.*)

*Grapes ripened without the Sun's rays.*—The following fact will prove that grapes may attain their full size, and become perfectly ripe, without receiving the immediate rays of the sun, if the vines on which they grow receive the sun's necessary warmth:—On the south side of the Orphan Asylum, at Oranienburg, there is a vine of the white guttedels, which is partly trained over an outer casement of the boys' sleeping room, so that the window cannot be opened. In the spring of last year (1836,) a fruit-bud of the vine found its way through a chink in the window, not wider than a single straw, and grew well. Although confined to the narrow space between the inner and the outer window, in which not a single ray of the sun penetrated throughout the whole year, the grapes continued to increase in size, and kept pace with those on the same vine in the open air, and ripened when they did, in the month of October. The bunch consisted of about fifty grapes, of a tolerable size, and particularly sweet. As this may be interesting to others, as well as useful as a reference, I wish to make it known to the lovers of gardening generally. (*Garten Zeitung*, translated into the *Gard. Mag.*)

*Zinc Labels.*—Zinc is the only fit ingredient for labels, whether to be used in the ground or in pots. A sheet of zinc is easily cut, by the gardener, with strong scissors, into labels of whatever size he may want. If the zinc is greasy, the labels should be steeped for a minute or two in diluted nitric acid. The following receipt for making ink for writing on the zinc was communicated to me by a gentleman who was in the habit of using it, and I have found it indelible. Take verdigris in powder, 1 part; sal ammoniac in powder, 1 part; lampblack, half a part; water, ten parts. Mix carefully in a mortar; keep the ink in a bottle, well corked. It must be well shaken before the pen is dipped in it. (*Herbert's Amaryllidaceæ*, p. 411.) We have before (vol. II, p. 153,) stated our opinion of the great utility of these labels over all others; and we are happy to be seconded in our opinion by so experienced an amateur as Mr. Herbert.—*Cond.*

## ART. II. Foreign Notices.

### ENGLAND.

*Open spaces for the Exercise and Recreation of the People.*—"Mr. Hume," in the House of Commons, March 9, "moved a resolution, that in all enclosure bills, a provision should be made for leaving an open space sufficient for the purposes of exercise and recreation for the neighboring populations. He proposed that this should be one of

the standing orders." The resolution was highly applauded by several honorable members, and unanimously agreed to. (*Morn. Chronicle, March 10.*) It must be gratifying in a high degree to the people of Great Britain to have such a resolution pass; it speaks well for the taste and the desire of those, who have it in their power, to increase the pleasures of the people, by opening to them places for exercise and recreation, and in a great degree thereby increasing the health of towns and villages, which would, otherwise, in time, become thickly covered with dwellings of various descriptions. Some act or resolve of Congress, authorizing the selectmen of towns or the corporations of cities to reserve open spaces for the exercise of the people, would have a great effect in spreading a taste for rural scenery, and likewise afford "breathing places" for a dense population. This is, perhaps, anticipating much; but we hope the time will soon arrive when such will be the case.—*Cond.*

*Growing Grapes in the open air.*—Mr. Moss, gardener at Eastnow castle, Herefordshire, raised five hundred pounds of black Hamburgh grapes from one vine last season. In 1835 the crop was equally as heavy. They were fine flavored. (*Gard. Mag.*)

*Seedling Cinerarias.*—Mr. Henderson, of Pine apple Place, London, has lately raised several seedling cinerarias, which are said to be "indeed truly splendid." Their habit is dwarf, they are free flowerers, and early bloomers. They are far superior to anything of the kind before seen, and, it is stated, should be in every collection. (*Pax. Mag. Bot.*)

*Wistaria Consequana.*—This beautiful plant, which is now becoming so common an ornament of our green-houses, verandahs, and garden walls, will, nevertheless, still be considered worthy of a situation in every collection, on account of its flowering so early in the spring, and the flowers being so beautiful and fragrant; and we have no doubt that any method of making it flower more abundantly would be well received by our readers. Mr. Knight, of Chelsea, has a simple method of causing this plant to flower three times a year, by the following treatment:—after the first flowering is over, which will be about the latter end of May, he strips off all the leaves, and cuts off all young and superfluous shoots which have been formed, to within a few eyes of the stem, which causes it to throw out fresh leaves, and to flower again in the months of July and August; and after this flowering is over the same process is repeated, of cutting off the leaves, and this causes it to flower again in the months of October and November. It may be said that this plant will naturally flower twice, and sometimes thrice, in the season; but when it does, (which is but seldom,) the flowers are so weak, and there are so few of them, that it is never worth notice; whereas, by the above simple process, an abundant succession of flowers may be ensured throughout the whole season. It should be remembered that these remarks will not apply to young plants, but only those that are well established. (*Pax. Mag. Bot.*)

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### ART. III. Domestic Notices.

*Filberts—Whortleberries.*—When on a visit, a few years since, in Maine, I made several excursions on the borders of the Kennebec, and saw, for the first time, a number of shrubs, some of which appeared to me worth the trouble of transplanting. Amongst others I brought home

with me plants of the one known there as the hazle-nut, and very closely resembling the very common shrub known here by the same name. I can see no difference in the two except in the fruit, where it is obvious enough. I succeeded in collecting about thirty nuts from my plants the second year after transplanting, and exhibited them at the Horticultural Society's room. They were referred to a committee, who reported that they "appeared to resemble the European filbert." Mr. Nuttall entertained no doubt but they were the same. In fact, some filberts from the shops were shown with them, and no one could point out any difference. I have now increased my plants, and in the autumn hope to send you a pound or two of the nuts, in the hope that you will shew them to your numerous visitors, and perhaps aid in the cultivation of what seems to me a valuable auxiliary to our dessert fruits.

Another fruit which I occasionally see in our market should find a place in the gardens. It is the *white* huckleberry, or whortleberry. It bears the same relation to the *black*, as the *white* currant does to the *red*, and, like that, is, no doubt, an accidental variety. It is transparent, and being free from the color which stains so badly in the *black*, is a most desirable fruit for puddings or the table. Plants enough may be found in the western part of Middlesex county.—*Yours, J. B., Boston, July 10, 1837.*

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#### ART. IV. Retrospective Criticism.

*Roses—new varieties,—in answer to "An Amateur,"* (p. 246.)—It certainly will afford great pleasure to the floricultural world to observe the many remarks in your useful pages on the subject of new and distinct plants, and especially the very distinct roses of your Baltimore amateur. But on one point he has fairly missed his mark; he did not send to *Rösa* for his plant at the time he mentions; it must have been to some honest nurseryman who did not wish to *cheat*, (as he terms it,) and gave him both names, a virtue rarely practised. He must be a very obscure amateur indeed, or then he would have found that the rose was known in Baltimore under both names in the fall of 1836,—also he has evinced great ignorance in the priority of the name, for "*Monthly Cabbage*" is the prior name, a name that it was known by as early as 1834, and "*Gloria de France*" not known till the fall of 1835. He also mistakes the price; there is no difference except in regard to size. In truth the whole of his attack is dictated in anything except the spirit of justice: the next he makes let him take the field and not the bush. I would also advise him to "*re-christen*" some of the roses he describes: a rose answering the description of his perpetual Bourbon was exhibited at the Grand Exhibition of the Pennsylvania Horticultural Society, in 1835, which rose did not originate at Baltimore.

It is a lamentable fact that the names of roses are in great confusion: I have seen the same roses imported under from two to six different names, which would afford an excellent *cheating* subject for "*An Amateur*;" but when he digresses again, let him tread upon a more firm foundation than *guessing*, and he will not require to be corrected by—*Rösa, Philadelphia, July 17, 1837.*

*Gardoquia Hookeri.*—In the last number of your Magazine, page 256, Mr. A. Gordon says that no plants of *Gardoquia Hookeri* have been imported from England. It has been sent to me twice—once from Liverpool and once from London. He also insinuates that I obtained my plant in a manner that requires a cloud to cover the transaction.

In a public periodical of such extensive circulation as yours, the subject should have been boldly and fearlessly treated, or entirely suppressed. Mr. G. will confer a particular favor on me by publishing, through the medium of your Magazine, the manner in which he supposes, or rather affirms, I obtained a plant in Philadelphia. If he does not, neither withdraw his insinuation, I will use the freedom of your Magazine to treat Mr. G. in the manner I think most proper. The aspersion he throws on the character of Mr. Skirving, of Liverpool, (in the same page,) is very unbecoming, especially in a situation where Mr. S. is not likely to see it. Mr. Skirving is a nurseryman of great integrity, and well known as such by the trade of the United States.—*I am, sir, yours, truly, R. Buist, Philadelphia, July 15, 1837.*

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ART. V. *Queries, Replies, &c.*

I think Mr. Russell and Mr. Boll are both right—the former treating of raising what are termed “hardy garden roses” from seeds, and the latter those of Chinese, Bengal and Noisette roses. It is well known that many of the Chinese rose seeds will come up in a few weeks, on bottom heat, and flower the same season; and it is as well known that all the art that has been tried cannot cause the varieties of *Rosa damascena* and *provincialis* to bloom, the first season, from seed: a communication to the contrary would be invaluable to your readers, and particularly to—*Rosa, Philadelphia, July 17, 1837.*

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ART. VI. *Massachusetts Horticultural Society.*

*Saturday, June 24th, 1837.—Exhibited.* From J. D. W. Williams, a flowering plant of *Erica ventricosa superba*. From J. A. Kenrick, cut flowers of the Irene rose. From M. P. Wilder, cut flowers of *Pæonia albiflora Richardsoni* (?) *Alstroemeria psittacina*, *Salpiglossis picta*, and other varieties, Grand Sultan *calceolaria*, rose Mabach, and a great variety of seedling pansies. From S. Walker, seedling pinks, and fine seedling pansies of the following kinds: Village Maid, Othello, Clio, Hecate, &c. From Wm. Kenrick, cut flowers of *Delphinium elegans plèno*, several varieties of pæonies, branches of the purple beach, &c. &c.

*July 1st.—Exhibited.* From T. Lee, Esq., cut flowers of *Rhododendron maximum*, *Kalmia latifolia*, *Menziesia globularis*, *Magnolia glauca*, *Verbascum compacta*, *Leptosiphon androsæus*, *Lasthænia californica*, *Lupinus polyphyllus*, *Stenactis speciosa*, and *Cleome spinosa*. From S. Walker, cut flowers of *Verbena chamædrifolia*, *Campánula persicæfolia*, and *p. alba plèno*; a great number of seedling pinks and pansies, ranunculuses, pæonies, larkspurs, &c. From M. P. Wilder, cut flowers of *Gladiolus pudibundus*, a variety of seedling pinks and pansies; and numerous specimens of roses, embracing the Snowball, York and Lancaster, Mexicaine, provins, mosses, &c. From W. Miller, cut flowers of *Pæonia albiflora* var. *fragrans*, and *Whitleji*; also, roses, and fine seedling pinks. From Dr. J. C. Howard, a variety of dahlias. From Wm. Kenrick, cut flowers of *Pæonia albiflora* var.

fragrans and Whitlèji, and roses. From J. A. Kenrick, a superb variety of roses, and cut flowers of *Pæonia albiflora* var. *Hûmei*, fragrans, and Whitlèji. From Hovey & Co., fine bouquets, containing *Chrysêis crôcea*, *Gaillârdia aristata*, *Delphinium elegans pleno*, &c. &c.; also, Geo. IV, prolific moss, Rouge de Luxembourg moss, General Lamarque, and yellow Noisette roses.

From Hovey & Co., superb specimens of seedling strawberries. From J. L. L. F. Warren, Methven scarlet strawberries, and short prickly cucumbers.

A meeting of the Society was held this day, to take into consideration the expediency of celebrating the ensuing anniversary of the Society, by an Address and an Exhibition of flowers and fruits; and committees were accordingly chosen. Capt. Alexander Parris and Samuel Hunnewell were admitted members of the Society.

*July 8th.—Exhibited.* From M. P. Wilder, a variety of roses, among which were the Ball of Snow, belle Judithe, Mexicaine, Gen. Lamarque, sage-leaved moss, &c.; also, fine seedling pinks. From T. Lee, Esq., cut flowers of *Rhododendron maximum*, *Kalmia latifolia*, *Mûdia splendens*, *Leptosiphon densiflorus* and *androsæceus*, *Calâmpelis scâbra*, *Mâlva* sp? a variety of dahlias, and specimens of the Ayrshire, Marie Leonidas, and Noisette roses. From Dr. J. C. Howard, a variety of dahlias. From Wm. Kenrick, bouquets of flowers containing pæonies, roses, honeysuckles, &c. From S. Walker, seedling pinks of the following names:—Walker's Claudius, Mary Louisa, Estelle, Col. Wilder, Cushingtônia, Othello, and Nealénsis; also, fine pansies and ranunculuses, and cut flowers of *Clématis erecta*, *Gaillârdia aristata*, *Spiræa filipêndula* and fl. pleno, *Lysimâchia quadrifolia*, *Ænothèra Frazèri*, *Lythrum salicaria*, roses, &c. From Hovey & Co., bouquets containing a great variety of flowers, and specimens of the *Mimulus cardinalis*. From Messrs. Winship, a great variety of dahlias, among which were Agrippina, Countess of Liverpool, picta formosissima, Springfield Rival, Emperor of the Yellows, &c. &c.; also, specimens of several new plants, raised from seeds collected by Mr. Nuttall, on his late visit to the Columbia River.

From E. Vose, Esq., black tartarian and white bigareau cherries, and Methven scarlet strawberries. From J. L. L. F. Warren, Methven scarlet strawberries.

At this meeting Messrs. C. & A. J. Downing, Newburgh, N. Y., were elected members of the Society.

*July 15.—Exhibited.* From Dr. J. C. Howard, several varieties of dahlias, and cut flowers of *Hôya carnosa*. From J. Towne, Boston, an elegant specimen of *Erica mammosa*. From Charles Hood, Esq., cut flowers of the *Liodendron tulipifera*. From M. P. Wilder, cut flowers of geraniums, containing, among others, grandissima, Adelina, Diomedé, Clarissimum, Capt. Cook, and Statira; also, *Schizanthus retusus*, *Mimulus grandiflora*, and several kinds of roses. From T. Mason, several dahlias, roses, &c. &c. From Wm. Kenrick, bouquets containing a great variety of flowers. From S. Walker, fine seedling pinks, and a variety of ranunculuses; also, bouquets containing a great variety of flowers. From Hovey & Co., bouquets of flowers, and specimens of the double white and scarlet lychnis, *Campânula Trachelium pleno*, *C. Lorrèji*, *Phlox carnea*, *Gaillârdia aristata*, &c. &c. From Messrs. Winship, a variety of cut flowers, among which were five species and varieties of passion flowers, *Cobæa scandens*, *Ænothèra glauca*, *Lophospermum erubescens*, Ayrshire roses, carnations, geraniums, pinks, &c., and a species of collinsia, *C. atrophylla*, from California.

From J. L. L. F. Warren, Roaring lion gooseberries. From T. Mason, yellow Antwerp and Franconia raspberries. From B. Guild, apples of last year's growth. From S. Sweetser, ripe tomatoes.

*July 22d.—Exhibited.* From S. Sweetser, dahlias, geraniums, and cut flowers of *Hoya carnosa*, and two varieties of *Nerium splendens*. From T. Mason, a variety of dahlias, and a double variety of *Nerium*, with pale pink flowers. From Jos. Breck & Co., several dahlias, among others Ariel, and Metropolitan Calypso, *Calliopsis tinctoria* var. *atrosanguinea*, double maryolds, and seedling larkspurs from the *D. grandiflora*. From Dr. J. C. Howard, a variety of dahlias. From Hovey & Co., bouquets of flowers. From Messrs. Winship, cut flowers of *Yucca filamentosa*, *Hoya carnosa*, *Cobæa scandens*, passion flowers, phloxes, &c., and several dahlias. From S. R. Johnson, carnations, and cut flowers of the *Triumph de Luxemborg*, Countess of Albemarle, and *Jaune Désprés* (called by some the *Triumph d'Arcole*) roses. From S. Walker, cut flowers of *Cimicifuga fætida*, *Astrantia major*, *Oenothera macrocarpa*, and *Verbena chamædrifolia*; also, bouquets and specimens of pinks, pansies and dahlias. From M. P. Wilder, dahlias.

From S. Downer, Downer cherries. From J. L. L. F. Warren, scarlet strawberries, and several sorts of gooseberries; also a fine cauliflower. From J. G. Thurston, Lancaster, large gooseberries. From T. Mason, Franconia and yellow Antwerp raspberries, and several varieties of gooseberries. From J. T. Buckingham, red and yellow Antwerp raspberries, and Champagne currants. From J. Mackay, Weston, russet apples of the crop of 1836.

At this meeting it was announced that the Hon. Wm. Lincoln, of Worcester, had accepted of the invitation to deliver the Address at the anniversary of the Society, in September next. Caleb Eddy was chosen a member of the Society.

#### ART. VII. *Fulton Market, New York.*

*Vegetables.*—Potatoes, new, per bushel, 75 cts. to \$1.25 per bushel; old, 75 cts. to \$1. Turnips, new, per bushel, 50 to 75 cts. Beets, per bunch, 6 to 8 cts. Carrots, per bunch, 6 to 8 cts. Cabbages, per doz. 50 cts. to \$1. Lettuce, per doz. 12½ to 25 cts. Peas, per bushel, 50 cts. to \$1. String beans, per bushel, 50 cts. to \$1. Cauliflowers, each, 9 to 25 cts. Radishes, per doz. bunches, 18 3-4 cts. Onions, per cut, (or rope,) 4 to 8 cts; green, per bunch, 2 cts. Summer squashes, per dozen, 75 cts. to \$1. Shallots, per bunch, 2 cts. Cucumbers, 4 cts. each to 18 3-4 cts. per dozen.

*Fruit.*—Apples, per bushel, 75 cts. to \$1. Pears, baking, per half peck, 25 to 37½ cts. Currants, per quart: red, 6 cts.; white, 12½ cts. Cherries, per pound, 6 to 12½ cts. Strawberries, per basket, 6 to 8 cts. Raspberries, per basket, 6 to 8 cts. Gooseberries, per quart, 18 to 25 cts. Blackberries, per quart, 12½ to 18 cts. Whortleberries, per qt., 12½ to 18 cts. Watermelons, each, 19 to 50 cts. Pine apples, each, 12½ to 25 cts. Oranges, per doz., 37½ to 62½ cts. Limes, per doz., 12½ cts. Lemons, per doz., 25 cts. Bananas, per doz., 50 cts. Yams, per pound, 4 cts. Cocoanuts, per doz., 75 cts.

*REMARKS.*—The market is generally well supplied. Potatoes are fast coming in, and the prices falling. Turnips, beets, carrots, and cabbages, are plenty, as peas also have been, but are now getting inferior and scarce. Of lettuces and radishes a superabundance, as also of cu-

cumbers at present. There were a few tomatoes in market, but so few that it is not worth while to quote prices. Currants and gooseberries have been plenty, and the prices quoted for the latter relate to the best English varieties, of which there are now more in market than any previous season. Of cherries, strawberries, and raspberries the supply has been moderate.—*Yours, J. H., July 22, 1837.*

## ART. VIII. Faneuil Hall Market.

		From	To			From	To
<i>Roots, Tubers, &amp;c.</i>		\$ cts.	\$ cts.	<i>Pot and Sweet Herbs.</i>		\$ cts.	\$ cts.
Potatoes, new :				Parsley, per half peck,.....		25	
Common, { per barrel,....	1 50	2 00		Sage, per pound,.....		17	20
	50	55		Marjoram, per bunch,.....		6	12
Chenangoes, { per barrel,....	1 50	2 00		Savory, per bunch,.....		6	12
	75	1 00		Spearmint, per bunch,.....		6	
Turnips, new :				<i>Fruits.</i>			
per bunch,.....	4	6		Apples, dessert, new :			
Onions, new :				Common, { per barrel,....	2 50	3 00	
red, { per bunch,	4	6			1 50	2 00	
white, { per bunch,	4	6		Old Russets, per bushel,.....	2 00		
Beets, new, per bunch,.....	6			Pears, early, per peck,.....	75	1 00	
Carrots, per bunch,.....	6			Watermelons, each,.....	12½	50	
Horseradish, per pound,.....	12			Cherries, per quart,.....	10	12½	
Radishes, per bunch,				Strawberries, per quart:			
Scarlet short top,.....	3			Wood,.....	25		
Scarlet turnip,.....	3			Raspberries, per quart :			
Shallots, per pound,.....	20			Red Antwerp,.....	25		
Garlic, per pound,.....	14			Yellow Antwerp,.....	25		
<i>Cabbages, Salads, &amp;c.</i>				Pine-apples, each,.....	12½	25	
Cabbages :				Cocoanuts, each,.....	6		
Early, each,.....	3	6		Gooseberries, per quart,....	12½	17	
Savoy,.....	3	6		Currants, per quart:			
Cauliflowers, each,.....	12½	25		White,.....	6	8	
Lettuce, per head,.....	3	4		Red,.....	6	8	
Rhubarb, per pound,.....	3	4		Black, per bushel,.....	3 00	4 00	
Peas, { per bushel,.....	75	1 00		Grapes, (hot-house) per pound:			
	25			Black Hamburg,.....	1 00		
String Beans, per peck:				White Chasselas,.....	75	1 00	
Common,.....	17	20		Green (wild) per bushel,....	1 00		
Cranberry,.....	25			Cucumbers, per dozen,.....	10	12½	
Marrow,.....	25			Cranberries, per bushel,....	6 00	7 00	
Tomatoes, per dozen,.....	25	50		Oranges, { per box,.....	4 00	4 50	
<i>Squashes and Pumpkins.</i>					25	50	
Summer Squashes, per dozen:				Lemons, { per box,.....	3 00	3 25	
Bush,.....	10	12			25	37½	
Crookneck,.....	10	12		Shaddocks, each,.....	25		
West India, per pound,.....	2	3		Walnuts, { per barrel,.....	4 00	4 50	
Pumpkins, each,.....	12½	20			2 25	2 50	
				Almonds, (sweet,) per pound, ..	12	14	
				Filberts, per pound,.....	4	6	
				Castana,.....	3	6	

REMARKS.—The great difference in the supply of the various vegetables for the market between the date of our last report and this, was



never more apparent than the present season. Very few indeed of the articles which are now to be had in great abundance were then to be found. This has been in a degree owing to the favorable weather during the previous part of this month, which has given a rapid start to vegetation. Crops in general look well, and corn, which last year was not received until very late in the season, will, from appearance now, soon come to hand. Potatoes have been received earlier than last year, of large size and of very excellent quality; prices are now moderate; of the old stock there are very few to be found. Turnips are plentiful. A few bunches of this year's crop (from Connecticut,) were received this week; the supply of green ones is abundant. Beets and carrots now come in of fine size. Radishes are about done for the season; as other articles come in they are less sought after; this, together with the hot weather of our climate, which prevents their being raised of good quality, induces gardeners to give up growing them after July.

Cabbages are now received in quantities, and prices have fallen; some Savoy came to hand this week of tolerable size. Some of the most beautiful cauliflowers that we have seen for a long time are now in market, and the prices are very low. Peas are still plentiful; the marrowfats and other late ones are now to be had. String beans are abundant and fine. Tomatoes from the vicinity, of good size and well ripened, are now brought in. Summer squashes of both sorts are plentiful and fine. The stock of West Indias is most exhausted.

Fruits of most kinds are as abundant as could be anticipated. Apples have been received in considerable quantities from Virginia, though they have not been of very superior quality, but, on the contrary, rather ordinary. A few russets of last year's crop yet remain. Some pears have been brought from New York and sold at quotations, and a few of the sort, from this vicinity, called the Independent, have also been received; a few days, however, will find the market supplied with an abundance of fine sorts. Of watermelons there have been some arrivals; but they were of inferior quality and small size compared with what are generally brought from Virginia. Cherries tolerably abundant and good. Strawberries about done. Raspberries are more plentiful this season than we have before known them. Grapes from the hot-houses of this vicinity come in now of most excellent quality, but sales are exceedingly dull; very few purchasers are found at the present prices. Currants in abundance. Cucumbers are now to be had by the dozen at a less price than they sold for each, at the time of the last report. A few cranberries remain. Pine apples continue plenty. There is very little alteration in the prices of oranges and lemons, and the stock is about the same.—*Yours, M. T., July 22, 1837.*

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## HORTICULTURAL MEMORANDA

FOR AUGUST.

### FRUIT DEPARTMENT.

*Grape vines*, in the green-house or grapery, will now need frequent syringings, with pure water, and if any mildew makes its appearance,

one or twice washing the vines with soap-suds will have a good effect. Finish thinning out, if it has not been done before, and tie up the shoulders of the large clusters. Keep the vines well nailed or tied up, and take off all superfluous wood.

*Vines* in the open garden should now be divested of all superfluous shoots, and the bearing wood for next year laid in at full length. Syringe frequently.

*Strawberry beds*: prepare the ground now for new beds, which may be set the latter part of the month. If the weather, however, should prove dry, it will be better to delay till early in September.

*Fruit trees*, of most kinds, may be budded successfully this month.

#### FLOWER DEPARTMENT.

*Camellias*: water these sparingly now, as an excess of moisture will cause them to drop their buds. Syringe them frequently. Inarching may be successfully performed this month.

*Orange and lemon trees* may be budded this month.

*Geraniums* should be cut down, if not done before, and the cuttings put in.

*Ericas* may still be propagated, and the old plants repotted, if not previously done.

*Chrysanthemums* should be shifted into large pots, (number four,) this month.

*Roses* may be budded this month. Select good thrifty stocks.

*Carnations*: finish laying these as soon as possible.

*Pinks* may be now increased by pipings.

*Amaryllis belladonna*: repot the bulbs the latter part of the month.

*Mignonette* may now be sown for blooming in December.

*Cactus* cuttings may now be taken off and layed away, to heal up their wounds, previous to putting them into pots.

*Schizanthuses*, *nemophilas*, and other annuals, for the green-house in winter, should now be sown.

*Hydrangeas* may be propagated this month.

*Perennial flower seeds*, which were sown last month, and the plants from which are now of good size, should be transplanted the latter part of the month.

*Calceolaria* cuttings should now be put in.

*Dahlias* should now receive attention: they will grow rapidly, and they should be judiciously trimmed of all superfluous shoots, and those remaining tied up neatly to good strong stakes. If dry weather should occur, give good supplies of water. Mulching at the roots of the self colored ones, with old coarse manure, will tend to increase their size, and give them deep color.

#### VEGETABLE DEPARTMENT.

*Celery* for a late crop may be now set out.

*Spinach* seed should be sown soon.

*White onions*, for early spring use, should be planted this month.

*Rhubarb roots* may be transplanted the latter part of the month.

# THE MAGAZINE

OF

## HORTICULTURE.

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SEPTEMBER, 1837.

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### ORIGINAL COMMUNICATIONS.

ART. I. *Notes and Observations on Gardens and Nurseries in the vicinity of Newark, N. J., New York, Hartford, and Boston, made during a visit between the 5th and 20th of July, 1837;—with some Remarks on the state of Horticulture and Agriculture.* By E. SAYERS, Landscape Gardener.

AGREEABLE to your request, I herewith send you a short description, although not so accurate as I could wish, of the state of horticulture, as noticed in my late visit. I have added some hints respecting agriculture, which, though not, perhaps, altogether in accordance with the tenor of your Magazine, may be acceptable to some of your readers. Indeed, any intelligent person must be aware that the eye that is open to the progress and growth of *horticulture*, cannot possibly be shut to *agriculture*; and so intimately connected is *rural scenery* with horticulture, that the more the one is blended with the other, as relates to culture and general observation, the greater will be the result of general improvement and domestic comfort in any country in which it may be practised. Therefore, under this impression, I proceed with my subject indiscriminately and impartially, always believing it to be the most agreeable to the general reader, and satisfactory to the most accurate judge.

In reference to Newark, as respects horticulture, it has, like most other towns and cities, very much improved in the cultivation of culinary vegetables, for the market, by the market gardeners, particularly the more general introduction of the egg plant, pie plant, or tart rhubarb, celery, tomatoes, and choice vegetables, for which there is a pretty general supply and demand. The flower garden department, too, in the city, is becoming

not only a general appendage to every house of the wealthier class of citizens, but is also beginning to be a source of amusement and pleasure to the mechanic, and, indeed, all classes of the inhabitants. In the city there are several gentlemen who keep a regular gardener, and are much improving their collections of green-house plants: hardy shrubs, and all kinds of herbaceous plants, are also eagerly sought after, to embellish the flower garden and shrubbery. Among the private gardens of note, are those of

*Wm. Wright, Esq.—July 5th.* This place, under the management of Mr. J. Dukes, gardener, may be said to be the oldest established here. The garden contains about an acre of ground, very neatly laid out, in an open, bold manner, partly in flower borders and walks, very prettily contrasted with a grass oval, of a good proportion, at the end of which is a small green-house, well stocked with a good collection of green-house plants of the different varieties, as camellias, geraniums, roses, and other choice plants. Attached to the flower garden is a well kept kitchen garden, well stocked with *choice* fruit trees, several of which are trained to a good purpose as espaliers.

*The Garden of A. W. Kenny, Esq.,* (Mr. Henry Montgomery, gardener,) is in a good state of cultivation, and well stocked with choice fruit trees and excellent vegetables. This establishment was much improved last year, by attaching to it a new green-house, which was furnished with a choice collection of green-house plants, kept in excellent order through the winter, and, indeed, every thing corresponds, as a well stocked and managed garden.

*The Garden of Pruden Alling, Esq.* consists of a green-house and flower-garden, well stocked with a choice collection of plants, and extensive grounds for the purpose of growing vegetables, &c. for the Newark market, which receives many fine productions from the establishment. To these may be added many well arranged gardens, which it would take too much space in this communication to describe.

In calling at these and other places, previous to leaving the city, I was much gratified at being shown, by Mr. H. Montgomery, some fine new varieties of laced pinks, which would have done justice to some of the best prize shows in England: he also had some fine specimens of gooseberries, grown from trees planted last spring. In this establishment, and every other in this city, there appeared a general addition to the *herbaceous* list—a class of plants much wanted, and too much neglected, in the flower garden department. Indeed every place indicated an improvement in the collection of plants and better management of the grounds. Independent of cultivated *exotic* plants, this district of the Jerseys possesses some of the finest native varieties of shrubs and herba-

ceous plants, which are in every way richly deserving a place in the shrubbery and flower garden, and, indeed, are much arresting the attention of connoisseurs, and those who have gardens in the city, into which the *Magnolia glauca*, azaleas, kalmias, spiræas, and other fine native shrubs, are introduced. Many pretty varieties of herbaceous plants are also introduced and cultivated to a good purpose, and greatly improved. In leaving Newark, the *Magnolia glauca*, in which this vicinity abounds, was then in flower, and its fragrance, for some distance around its native swamps, was not less exquisite than that, spoken of by travellers, of the spice fragrance from the Molucca Islands in the East Indies. The *Magnolia glauca* should find a place in every collection of shrubs and flowers.

From Newark I visited the gardens of the Messrs Brills, Jersey City, which have an extensive vegetable department attached, and from whence are produced such as are excelled by none in the New York market. They have also two good green-houses, appropriated to growing plants for the market, and excel in a fine collection of China tea-scented roses, and a numerous collection of seedling herbaceous and suffruticose calceolarias: they have also a general collection of green-house plants, many fine varieties of annual flowers, and dahlias, which they have taken great pains to collect.

In reference to the general crops of this district, they are generally good, but considered late, particularly the hay, which promised an abundant crop; the fruit also promises well, especially pears, plums, gooseberries, currants, and small fruits, which have generally set well, and look healthy.

*July 6th.*—In passing through New York, I found the markets generally well supplied with vegetables of the season; and the plants in the different establishments in a healthy state, and many additions made to their collections of new plants, particularly the geraniums, the Chinese roses, dahlias, and favorite plants and flowers. Owing to the weather being unfavorable, I proceeded on my journey as far as Hell-gate, where I called at the following places.

*Residence of N. Prime, Esq.*—I found here my old acquaintance, Mr. Aslop, gardener, who, in his usual polite manner, showed me his grape-house, which was in excellent order, and a good crop of fruit. His first house of forced grapes, (nearly all the black Hamburg,) was nearly ripe, and well colored; the peach-house, from which some fruit had been gathered for table, I do not recollect to have ever seen in a more healthy state, or with a better crop of fruit; the nectarines were also very heavily loaded, particularly the Pitmaston, and every thing corresponded in good keeping and judicious management. From the garden of Mr. Prime, I called at that of

*J. J. Astor, Esq.*—Mr. Collins is gardener here; it is principally appropriated to vegetables, of which an exceedingly fine crop was growing, and I also noticed some good specimens of choice dahlias in flower, and a good collection of green-house plants.

From Hell-gate I crossed over to Hallet's Cove, to see Mr. Thorburn's place, who had, the evening previous, given me an invitation.

*G. C. Thorburn's establishment.*—Mr. McIntosh, the manager, kindly took me through the place, where I was much gratified with the fine collection of green-house plants, particularly the extensive collection of camellias, which, Mr. M. informed me, was in flower nearly all the season, to supply the great demand for cut flowers. I also noticed several fine specimens of *Rhododéndron*, particularly the *R. Russellianum*, *R. arbóreum*, and the finer kinds. Some fine varieties of tea-scented China roses I also noticed, with many newly introduced geraniums, as the Admiral Nelson, a superb fine brilliant scarlet, the Princess of Nassau, maculátium supérbum, &c. Mr. M. showed me some fine specimens of tree roses in flower, inoculated on the native briar, which stand the winter well, by bending down the head, and covering them with earth in the fall, to protect them during winter. The collection of dahlias, which Mr. Thorburn has spared neither pains nor expense to collect, was also very numerous, and contains the finest and best kinds. The collection of plants in general was very good.

I also noticed some fine specimens of tree roses, at the garden of H. Halsey, Esq., Hallet's Cove, under the management of Mr. Nathan Brewster, such as the Noisette Lamarque, Noisette ranoncule, crimson perpetual Noisette, George IV., double yellow, Village maid, and many other fine varieties of imported roses, which Mr. B. manages, by strawing the head or top of the plant, during winter, so as to protect the inoculated part from the intense cold. From Hallet's Cove I continued on my route to Harlem, where I called at the market garden of

*Henry Hall, Esq.*, containing the most extensive grounds on the island, which have lately been laid out by his gardener, Mr. William Cunningham, in a very economical and judicious manner. This extensive garden is laid out in a free open style, partly for vegetables and partly for ornament. The walks are generally wide and bordered with wide flower borders, planted with rows of dwarf growing fruit trees, and such shrubs and flowers as are generally to be found in such gardens; a great part of the ground is also occupied with fine sheets of water, or ponds, that give it a picturesque effect. One very large space is intended for a pond for oyster beds, and is so managed, that water from the Harlem river can be let in or

drawn out of it, at pleasure, by a draw bridge. On the ground I noticed several excellent specimens of rustic chairs, summer houses, &c., tastefully made from the natural arms and limbs of trees. The garden is altogether well managed, and continues to be improved; and when the trees are grown so as to give a little more relief on the level ground, it will be almost unequalled as an extensive ground adapted for pleasure and useful horticulture, particularly if the enterprising proprietor builds (which, it may be suggested, he will,) a range of houses for green-house and exotic plants.

It is much to be regretted, that, in a city like New York, there is not a place similarly laid out as a public garden, which could not fail to be patronized; but the difficulty would be, to obtain a piece of ground adapted in the like manner, which would be almost doubtful; and it could not be expected that these grounds could be obtained at any rate for the purpose. In continuation of my route I called at

*West Farms, the residence of David Lydig, Esq.—July 8th.* This establishment is four miles from Harlem, and is beautifully situated on the east side of a fine living stream of water, on which is a flour mill of considerable extent. The grounds, which are laid out in a fine open manner, principally ornamental, may be considered of the first order, being of an easy ascent from the stream, and laid out in long avenues of flower-borders and walks, with a good portion of lawn, together with summer houses, seats, and the like, very appropriately arranged, which, with the fine distant avenue of a wood, formed by the stream, render it a delightful summer residence. It is under the management of Mr. Thomas Mercer. The flower garden is well supplied with good varieties of shrubs and hardy herbaceous plants, and is in most excellent order: there is a good kitchen garden, which has been formed with much labor, and a small green-house, that Mr. Mercer hopes to enlarge in the fall, which, if done, will render the place altogether one of the most desirable and agreeable to be found in this vicinity.

Mr. Mercer showed me some good specimens of a seedling strawberry, called the Messrs. Downton, [we should be happy to hear from Mr. Mercer respecting this variety—*Cond.*,] raised by him from the Keen's seedling. The fruit somewhat resembles its parent, in habit, but is of a more globular shape, color a light-red, fine solid pulp, highly flavored, and said to be a prolific bearer and very hardy plant: there is no doubt but it will be found every way to be deserving of general cultivation, if a fair trial is given.

*Westchester, J. Austin, Esq.—9th.*, Mr. Karle, gardener: a pretty residence, with an extensive lawn and shrubbery; with a well laid out flower garden in the geometrical style, and kitchen

garden in a low situation. The flower garden is well stocked with good plants, and I noticed a fine collection of the dahlia, and the best collection of carnation pinks I have seen. In the kitchen garden the crops had been much injured by the long continued wet weather, and many of the flowers had also suffered. But Mr. Karle informed me that the flower department is to be removed to the high ground, near the mansion, where the location will be much better for the plants, and convenient to visitors. On the pleasure ground I noticed some fine specimens of tree roses, mostly of the perpetual kinds, which, Mr. Karle informed me, are in flower nearly all the season. In the kitchen garden was a fine square of melons, grown under hand-glasses, a method which will most probably have to be generally adopted, to obtain good fruit, unless the seasons alter from what they have been for a few years past.

*Crog's Neck, Mr. Hammond's*—10th. An extensive fruit and vegetable garden, rented by Mr. Card, for the purpose of a market garden, in which he excels in good management and fine vegetables. His gooseberries were the finest specimens I have seen, and produced an excellent crop. The trees were planted some distance apart, in the centre of four feet asparagus beds—a method which appears original with Mr. Card, and which will perhaps be adopted by many. It should be remarked, however, that the trees in this situation are partially shaded from the burning sun, and the roots in a rich, cool, moist situation, the principal requisites to obtain good fruit in this climate.

*Mr. De Wolfe* has an extensive garden in this neighborhood, which was politely shown me by his gardener, Mr. De Voe. Here is an extensive range of glass, built of a good width, for the growing of the grape; there is also another range, now in fruit, which is in a very thriving and healthy state, on a small scale, and which is intended to be altered on a line and of equal dimensions with the *new* one; this done, it will be one of the finest ranges of hot-houses to be seen about here. In the garden were many fine plants and vegetables, but Mr. De Voe complained much, as did every gardener, of the injury done by the long continued wet weather.

From Westchester I continued my route to New Haven, passing through several pretty towns and villages, but my time would not admit of my stopping at any places on the road. I noticed, however, in most places, that horticulture appeared to be fast improving, particularly in towns and cities, where every house of any note has its flower garden, grape vines, &c. The agriculture of this district seems to be well managed, but in many places the crops of grass and rye are light, partly owing to their being winter killed, and partly to the ravages of a black worm. In many places the meadow land was overrun with that pest of vegetation,



the white weed, or ox-eye daisy, with which some hundreds of acres were perfectly white. Every farmer should unite in a determined effort to eradicate this pest of the land; for where it once gets precedence in any district, the farmer is a loser of at least twenty-five per cent on his crop.

*New Haven, residence of Richard Musgrove, Esq.—July 12th.* On my arrival here I was introduced to Mr. Moningham, the gardener, who kindly introduced me to his employer, who has a very pretty city garden, (with a green-house attached to it,) neatly laid out in well proportioned flower beds, planted with the choicest kinds of flowers, kept in the neatest and best order. The walls and fences were well covered with trained fruit trees of the choicer kinds, and every thing about the place indicated the true amateur and practical gardener.

*Dr. Ives*, an amateur in fruit, and a cultivator of many fine varieties of medicinal plants,\* kindly showed me his garden, in which he practises on fruit, by engrafting one variety upon another, and by which experiments he thinks he has proved, that the smaller kinds are much improved by grafting on the larger. The doctor has engrafted the Seckel pear into the pound pear, or Catillac, and says its fruit is finer and the tree a better producer. Dr. Ives has in his garden a seedling pear, which he names the New Haven pear; this had a fine crop of fruit, and he informed me that it was of an excellent quality; the variety originated with him, from seed, and seems to partake of the habit of the virgoulouse. From appearance, and such respectable authority, it will undoubtedly rank among the best varieties which have been produced from seed in this country. [We shall be glad to receive from Dr. Ives an account of the origin of this variety, together with a description of the fruit, and other particulars respecting it. If this should meet his eye he will confer a favor by sending us some information in regard to it.—*Cond.*]

The next place of note in the city is that of Mr. Tappan's, managed by Mr. Moningham the elder, which is a type of the one already described in choice things and good order. There are also many pretty gardens attached to the different dwellings in the city, especially on Hillhouse Avenue, a prettily arranged part of the city, adapted for the first class of citizens, on a rising

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\* It is much to be regretted that collections of medicinal plants, which can be easily obtained, are not more generally cultivated, particularly by the faculty. It is with pleasing recollections that I often bring to mind the oft repeated phrase of my late employer, Dr. Hosack, of Hyde Park, (whose memory will often be regretted by the *afflicted*, to whom he often gratuitously gave his advice,)—"apply simples and herb tea, such as wormwood, horehound, &c." The doctor, a short time prior to his death, seemed very desirous to have a portion of ground at Hyde Park appropriated to medicinal plants, and would no doubt have excelled in the best collection, had he been spared to collect them.—*E. S.*

eminence, from which a fine prospect of the surrounding country can be enjoyed by the residents. The grape, too, and other choice fruit, is much cultivated at New Haven, and, indeed, horticulture may be said to be generally cherished among the principal part of the citizens.

From New Haven to Hartford the crops and general face of the country is similar to what was before named, and horticulture is improving; but I regretted to find that the cottage garden, that ornamental part of rural scenery, so much neglected at present; and I earnestly hope it will, ere long, become more general both for the benefit of landlord and tenant, setting aside the general improvement of native scenery. At Hartford I had the pleasure of being introduced to

*Judge Niles*, an amateur in fruits and flowers. The judge politely showed me his garden, in which he is much interested, and gave me a very pleasing discourse of the different kinds of fruit, and his object of obtaining those which ripened in succession, and concluded by saying he had fruit of the best quality in eating all the year, from his own little garden. He has also a small grapery, managed by his own hand, which was finely set with fruit, and in a healthy state.

*Garden of Mr. Tudor*.—I had also the pleasure of seeing this place, conducted by Mr. Mugford, his gardener. It is neatly laid out in flower beds, and a green, and one of the best collections of hardy herbaceous and choice green-house plants I have seen.

There is a nursery lately established at this city, by Messrs. Ely and Whittemore, which promises one day to be a good establishment; indeed, there is at this time a general collection of flowers and nursery plants, and a choice collection of dahlias. Leaving Hartford, I continued my route to Worcester, where the same description as before may be given of the general progress of horticulture. I called at two nurseries in this town; first that of

*Mr. White*.—This nursery is an old establishment, and has many good specimens of the different kinds of fruit and forest trees.

*Mr. J. W. Russell's Nursery and Vegetable Garden* is a new place, with a spacious green-house for growing plants and grapes, and also intended for a nursery, for which it appears to be well adapted—and indeed there are many good things on the place already; but its chief excellence, at present, is in the fine vegetables grown here, and from which Worcester is supplied with the earliest and best of the season. Mr. Russell yet remains at Mount Auburn.

Passing through the country, from Worcester to Boston, I noticed some pretty gardens, and, at my arrival, was much pleased

with my journey, and more especially as I met with the kindest attention from those whom I had the pleasure to visit, and for which I take this opportunity to return my sincere thanks; and I hope that these remarks, which it was not my intention to offer as a communication in your Magazine, will be viewed with indulgence, as it has been my endeavor to speak impartially, and to offend no one; and any error of misapplication I may have made in this, or may make in any other, article I may publish, I shall at any time be glad to correct.

In my observations I was much gratified at the general zeal for the improvement of horticulture, and noticed many prettily laid out places; but mostly found a deficiency in the collections of hardy shrubs and perennial flowering plants, which, with a little attention in collecting, would greatly embellish the flower garden. Such as the phloxes, rudbeckias, pentstemons, and similar showy tribes, should be collected, so as to give a variety of bloom all the flowering season, which is one of the principal features of the flower garden; no class of plants affords more delight, and it is to be hoped that they will be more generally cultivated. A collection once formed can be easily multiplied.

With these remarks I conclude this article, with the hope that it may prove interesting to your readers. They are only made with a view to disclose the interest taken in horticulture, in the more remote places from those generally known, and where, though the places are yet mostly newly established, they bid fair to be among the finest residences in the country.

Yours, most respectfully,

E. SAYERS.

*Boston, August 1, 1837.*

Mr. E. Sayers, the author of the above communication, and also of several excellent papers in our first and second volumes, some of them under various signatures, is now in Boston, and will be happy to attend to any thing which may be offered, in his profession. How well he is capable to perform its various duties will be readily inferred from reading his several articles. It is some years since he has been in the vicinity of Boston, at which time he had the management of one of the finest situations that was to be found at that time. He was afterwards employed by the late Dr. Hosack, at Hyde Park, since which time he has been laying out gardens and pleasure grounds in the vicinity of New York and Newark, N. J. He will remain in Boston several weeks, and will attend to any orders.

It would give us great pleasure to receive similar accounts of the gardens in various parts of the country. Gardeners visiting their brethren of the profession in distant places from where they reside, will confer a favor by sending us notices of such. It is one of our greatest objects to keep our readers informed of the progress of horticulture throughout the country.—*Cond.*

ART. II. *Observations on the Cultivation of the Rhododendron maximum.* By J. W. RUSSELL.

AT a late exhibition of flowers at the Massachusetts Horticultural Society's room, in Boston, I noticed a very splendid specimen of the *Rhododendron maximum*, from the garden of Thomas Lee, Esq., Brookline. This gentleman has manifested much zeal for native shrubs and plants, and is very successful in their cultivation. Although there was exhibited at the same time a number of choice roses, carnations, laced pinks, and a variety of other flowers, tastefully arranged, none appeared to be so generally noticed as a cluster of this truly magnificent flower: a number of the visitors were completely taken up with its unique and beautiful appearance, and were not a little astonished when they were informed that the plant that produced such charming flowers was a *native* of North America, and could be obtained at a trifling expense, from many places in the vicinity, particularly at Medfield, where it grows in considerable abundance.

I very much doubt, if all the far-famed new varieties of this tribe, together with the true *R. arboreum* of Nepaul, were shown with a fine specimen of the native *R. maximum*, whether any single cluster would be thought more highly of than this, I may add, too much neglected species: the flowers are closely set together, forming a handsome cone-shaped head; the corolla monopetalous; the border divided into five large, unequal, segments, which are white, shaded with lake, and slightly tinged with green; the upper and largest segments closely dotted with orange colored spots. The eye may here rest on, and admire, in my humble opinion, longer with delight, flowers thus delicately shaded, than on those gorgeous crimson colored varieties.

The compost I would recommend to be made use of for the successful cultivation of this desirable shrub, is three parts good peat earth, the other part yellow loam, well blended together before it is used; if to be planted in clumps, (and I would by no means plant them singly,) the soil should be taken away to the depth of one and a half feet, or, if two feet, all the better, and filled up with such a compost as proposed, not forgetting to tread it down *solid*; for if this is neglected, the compost, being light, will be sure to settle more than the operator may be aware of. The quantity of plants required will depend entirely on the extent of ground prepared for this purpose; the plants ought to be set out from one to three feet apart, according to their size, and not less than twelve or eighteen in *one clump*: the reason of planting so many together, is, that they *shelter* each other through

the inclement season of the year; they therefore grow much better than when placed singly. A *western* aspect is the most eligible situation, if it can be obtained.

Yours, &c.

J. W. RUSSELL.

Mount Auburn, Cambridge, August 1, 1837.

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ART. III. *Some Account of the Echinocactus Eyriesii, with a few observations upon the Management of the Cactææ in general.* By the CONDUCTOR.

THIS exquisitely beautiful plant having flowered in two or three collections around Boston and New York, the present season, we have thought that some account of it might prove interesting to our readers. We have not ourselves, for a long time, seen a flower which has so highly pleased us as one which appeared upon a plant in our collection the past month. It has been rather lately introduced, and is not yet generally found in collections of plants.

The splendor and magnificence of many of the species, and particularly the new varieties of this tribe, is so well known, that it is unnecessary to remark upon them here; the *Cereus speciosissimus*, *Epiphyllum speciosum* and *truncatum*, have been inhabitants of our green and hot-houses for a long period, and the former of them still ranks among the best which have ever been cultivated. Within a few years the *E. Ackermâni*, *Vandesia*, *Jenkinsoni*, and a number of others, have been introduced or raised from seed by English amateurs, and the catalogue of species and varieties is now swelled to a considerable size.

The genus *Cactus* formerly included many plants which are now placed in other genera, and several of which are included in *Echinocactus*, a genus lately established by M. Otto and preserved by De Candolle. Some confusion existed in regard to the proper place of several species, but they have finally had their respective stations in the different genera assigned them.

From an elaborate and able paper, entitled "*Observations sur la famille des Cactuses*," in the *Annales de Fromont*, for July, 1830, by M. Turpin, we have gathered some account of the *Echinocactus Eyriesii*; and as we believe it will be interesting,

we shall make some extracts from his communication. He describes the genus *Echinocactus* and the species *Eyriesii*, accompanying these descriptions with its history.

The genus *Echinocactus*, according to Mr. Turpin, holds a situation midway between *Melocactus* and *Cereus*. The echinocactuses have a melon-formed stem, composed of a variable number of ribs or angles, upon which are disposed alternately and in a spiral form the eyes and buds, which are woolly, and set around with spines. So far they resemble the melocactuses; but they essentially differ in having their inflorescence more scattered, the tubes of the calyx covered with a large number of scales, by the multiplicity of their petals, and by the fruit, which is covered with scales, instead of being naked and smooth. "Nothing," he states, "is more distinct among the new generas established than the melocactus, invariably crowned, as it were, by its conical spadix woolly and floriferous, and the echinocactus always uncrowned, and with its inflorescence scattered."

M. De Candolle, in his *Prodomus*, gives the description of nineteen species of *Echinocactus*, but of which only six were known in a state of inflorescence. Since the publication of that work, however, M. De Candolle received from M. le Dr Coulter, of Mexico, an invoice of living cactuses, and in a postscript in the supplement to his learned *Dissertation sur les Cactuses*, has given the description, in Latin, of a great number of species, among which are four new echinocactuses, which, at the time that paper was written, (1830,) made the whole number twenty-three. Among all the species described, not one could be referred to the *Echinocactus Eyriesii*.\*

The history of the plant, as gathered from M. Turpin's paper, is as follows:—M. Alexander Eyries, of Havre, whose distinguished zeal for every thing which could subserve the science, and who is so well known to all naturalists, has not only been desirous to communicate to me this new species of echinocactus, but has furthermore, with great politeness, furnished me with data touching the native habitat of this vegetable, and its introduction to the nurserymen of Havre. Not satisfied with that merely, M. A. Eyries has urged his generosity to the extent of sending me four young plants; the first designed for the Jardin du Roi, the second for the Establishment Royal et horticole de l'Institut de Fromont, the third for M. Fulchiron, and the fourth for myself; in a word, of hastening as much as possible the propagation and distribution of this beautiful species of the cactuses.

"This cactus," says M. A. Eyries, in the communication ad-

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\* In honor of M. Alexander Eyries, of Havre, to whom the author, M. Turpin, was indebted for a communication respecting this species.

dressed to M. Turpin, "was originally from Buenos Ayres:\* a French sea captain brought two of the plants in 1827; one of them was given to one of his friends employed in the *Bureaux de la douane*, [custom-house,] the other to another of his friends, a captain like himself, who sent it to, or exchanged it with, a gardener of Ingouville. A short time after, this gardener made two transverse sections of his plant, and sold me the superior part, which, having readily rooted, gave me flowers in abundance, and of tolerable size.†

"The inferior and truncated portion remained in the hands of the gardener, and produced no flowers; but, in the way of indemnification, he obtained, instead of flowers, at least thirty eyes, which developed themselves in so many distinct offsets, and could be easily separated from the parent plant. The plant restored to the person employed in the custom-house, attracted (by the beauty of its flowers,) the attention of an English gardener, who stated that he had not seen this species in England, and who made very advantageous offers to obtain it, and by the force of his solicitations they gave him the superior part in exchange for very beautiful plants which he sent from London. The inferior part remained with M. Bouthiller, an able horticulturist of Havre, and has produced at this time some small plants, (as in the case of the gardener at Ingouville,) but not so abundantly."

This account probably refers to the introduction of this species to France alone—as we find, in the text annexed to a figure of it, in the *Botanical Register*, t. 1707, that it was presented to the London Horticultural Society some years previous to 1834, by Sir John Lubbock, who procured it from Mexico. As it is figured, however, under the name of *E. Eyrièsii*, which name, we infer, from M. Turpin's communication, was given by him, and as Dr. Lindley states that he does not find mention of this "remarkable species" in the treatises of either Martius, Link and Otto, or De Candolle, it may be an error of his; and possibly it found its way into the British collections through the English gardener who purchased the plant mentioned in the history of the species above.

"At the moment," says M. Turpin, "that the last sheet of my dissertation upon the cactuses went to press, I received from M. le Chevalier Soulange Bodin a volume of the *Transactions of the Prussian Horticultural Society*, (vol. 6th,) published at

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\* He thinks also of the Island of Madeira.

† This operation ought to engage the attention of horticulturists, and induce them to multiply this most singular and beautiful of all cactuses. The *melocactus* is very rare in collections, but by sacrificing some, by cutting them transversely, maternal plants may be obtained from the inferior moiety.

Berlin, in which I found the description and a colored figure of a new species of *Echinocactus*, under the name of *E. oxygónus*, by M. M. Link and Otto." But this species, he adds, which grows in Brazil, and which resembles, in some respects, the *Echinocactus Eyriésii*, differs essentially by its spines, which are three times as long, and brown instead of being black; by the scales or folicles of the calyx, which are brown, or of a rose color, and slightly tinted, instead of being of a purple or greenish blackness, and furnished abundantly with long slender gray hairs; and, in a word, by their rose colored flowers and their yellow anthers, instead of a white flower and woolly white anthers. The *E. oxygónus* is, we believe, in some collections in this country, and we extract this account of it, that it may be readily known from the *E. Eyriésii*. Mr. Sweetser, of Cambridgeport, has one which he received from France, under the name of *E. Ottónis*, which very much resembles the *E. Eyriésii*. It may be *oxygónus*. Whether it was introduced into France and England at about the same time, or whether it was introduced to France alone, and from thence found its way to Britain, is of no great import; if the species is generally known under one name, it is sufficient. When in a state of inflorescence it can quickly be told from any of the other species.

The first plants, we believe, that were ever received in this country, were a few brought out by Mr. Boll, of the firm of Noe & Boll, florists, New York; and from them the present number of plants distributed over the country have been procured. Most of the collections of any note in the vicinity of our large cities possess a plant or two, although it has not yet produced flowers in many of them. Plants have flowered with Messrs. Noe & Boll, in New York, and perhaps at other places: around Boston it has flowered, we believe, at two or three places, for the first time, this season.

This species has been reported, like the *Cereus grandiflorus*, to expand its flowers only at night. It is properly a night flowering species, but very much unlike the *C. grandiflorus*, whose flowers open at about 11 o'clock in the evening, and long before the dawn of day are closed, never to unfold again. Not so with the *Echinocactus Eyriésii*; it remains in full bloom from twenty-four to thirty-six hours.

From our memoranda we give the following as the progress of our plant from the time its buds first became visible:—Sometime in the latter part of April there appeared, nearly on the top of the stem, two woolly protuberances, which we took to be the buds: they made very slow progress, and had not, until the middle of June, attained more than four lines in length; they were then covered with long blackish-gray hairs, entirely enveloping the buds, which emerged therefrom about the first of July; in



the course of a few days one of them grew nearly an inch in length, and in another week (July 14th,) had attained its full size, and the flower expanded. It began to unfold about three o'clock in the afternoon, was fully expanded at nine o'clock in the evening, and continued so until three o'clock in the afternoon of the next day, when it gradually closed up, and in less than an hour the flower began to wilt and droop, and by night had entirely faded. It should however be remarked that our plant accidentally fell out of the pot in April, and the soil was nearly all shaken from the roots; if this had not happened, it would probably have opened several days sooner: the other bud soon after fell off without making any farther progress, probably owing to the cause just named.

Of the great magnificence of this most superb species it seems scarcely necessary for us to say any thing at this time, after having so frequently noticed it: but our knowledge of the plant was from what we had read about it; and as we have seen the flower, we may be allowed to give some further account of it, from particular observation.

The flower measured, from the base of the tube to the tip of the petals, nine inches: its width at the top nearly four inches. The tube is funnel shaped, of a grayish-green, covered, at short distances, with tufts of blackish hairs. The petals are very numerous, lying in two rows, lanceolate, acuminate, reflexed at the edges, and of the most spotless and delicate white: the stamens are exceedingly numerous, a double portion of them being on one side, rising just above the top of the tube, where the petals diverge from. The anthers are of a pale straw color: the style is barely as long as the stamens, and could not be distinctly seen at a short distance, unless looking directly down into the flower: the stigma rayed. It exhales one of the most rich and delicious odors in the vegetable world, partaking, as M. Turpin remarks, of the fragrance of the orange flower and the *Datura arborea*; but to us it seems more agreeable and pleasant than the orange flower itself. No language can convey an idea of its beauty.

Unlike its near ally, the *Cereus speciosissimus*, it possesses none of the gorgeousness of that fine species: its beauty is of another kind. Before the expansion of the shaggy looking buds, no one would look for the transcendant beauty of the flower, which, as it gradually developes itself by its unfolding petals, reveals to eye one of the most exquisite forms, united with a snowy white complexion, which, for loveliness, surpasses any thing that can be imagined. Its purity of color and elegance of form seem too charming to gaze upon; and, as if aware of this, it closes ere its unexpected beauty is scarcely observed. It is figured in the *Botanical Register*, t. 1707, and in the *Botanical*

*Magazine*, t. 3411; but neither of the plates can be considered any thing more than faint resemblances to the flower, whose elegance cannot be conveyed to paper. That in the *Botanical Register* is much the best, but it lacks symmetry of form, and both have not the pure white of its petals, which color, in flowers, it has always been found impossible to picture with any effect.

As respects the cultivation of the *Echinocactus*, it is the same as the other nearly allied genera. Our experience has of course not yet been sufficient to discern whether this species requires any difference of management. Our plant was potted in sandy loam and a small portion of peat, and it has made a fine growth, notwithstanding the injury which it received from the accident before mentioned. Undoubtedly it is of the easiest cultivation.

In our second volume will be found several articles on the cultivation of the *Cactaceæ*, by Mr. Russell, of Mount Auburn; but little can be added to his excellent remarks from our own practice. It has been our rule to grow the plants in a compost very similar to his, differing only in using, in the place of leaf mould, which he recommends, peat soil: the most important point is to give a good drainage to the pots, and this can only be effected by filling the pot to about one third of its depth with potsherds—coarse at the bottom, and finer ones on the top of these. Mr. Russell's remarks upon the usual system of managing the various species, particularly during winter, which has been to keep the soil completely dried up, without scarcely a particle of moisture, are perfectly just; we may add, too, that the rule almost universally adopted, of growing them in the smallest sized pots, is as far from a proper mode of treating them, as withholding from them judicious supplies of water. It will be seen, and, we suspect, with astonishment, in an extract from a late paper in the *Horticultural Transactions*, (vol. I, part V,) which we shall give, that they are grown in large tubs! and with the greatest success. The old mode of treating this family, which we have always considered as destitute of their habit in their native localities, is now nearly exploded, and the rational one of allowing them both soil and moisture adopted. Many articles have appeared in the English Magazines upon their cultivation, but none of them appear to contain such excellent observations as that which we have just referred to. It was communicated to the Horticultural Society by Mr. Green, gardener to Sir E. Antrobus, Bart., one of the best cultivators of the tribe around London.

“The compost that I use is an equal quantity of light turfy loam and pigeon's dung, and one third sheep's dung, exposing the mixture to the influence of the summer's sun and winter's

frost, to mellow. When wanted for use, I add one third of sandy peat, in both cases mixing them well together.

"I grow the young plants from February to July, in the forcing flower house, kept from 55° to 60° Fahrenheit; I afterwards remove them to a shelf in an airy situation in the green-house, exposed to the mid-day sun, giving them plenty of air and little water. The plants that I want to flower the following September are placed in the forcing house, in the first week in December, giving them very little water for the first ten days, and gradually increasing the water as the plants advance in growth. About the first of February I stop all the young shoots, which soon become well ripened; from this time I decrease the quantity of water, until they become quite dry, in order to throw the plants into a state of rest; in the beginning of March I replace them in a cold shady situation in the green-house, keeping them quite dry until the following June, when I put them again into the forcing house, treating them as before. For plants to flower in August, I place a quantity more in the forcing house the first week in January, treating them the same as those for September, only they are put to rest in the green-house a fortnight sooner, and replaced in the forcing house one week sooner.

"The first flowering plants are put in the forcing house the end of January, and will come into flower about the middle of March. When these plants have done flowering, and are removed from the drawing-room or green-house, I prune away most of the old shoots that have flowered, so that the plants are furnished regularly with young shoots for flowering the ensuing year; these plants are also placed in the forcing house for ten days, to ripen the young wood and dry up the moisture, and are put at rest in the green-house, as usual: such plants will flower a second time in October; others, put in the forcing house the middle of February, will flower about the end of April; if these are pruned and dried, and put to rest as before, they will flower a second time, in November, and so on in proportion. I report them at all seasons, whenever the plants may require it, always observing to keep the pots well drained with potsherds, that the moisture may pass off readily. This process may be considered troublesome; but superior growth and abundance of flowers amply repay the care bestowed. By the above treatment, the *Cereus speciosus* and *Jenkinsoni* have generally produced from ninety to a hundred fine expanded flowers at one year old. The plants that I brought before the Society [May 21, 1833,] were about two years old; the *C. speciosus* bore two hundred flowers, *C. speciosissimus* seventy-two, and *C. Jenkinsoni* one hundred and ninety-four. I prefer growing them in wooden tubs [!], with wire stakes fixed to the tub, to the usual mode, of supporting them by stakes driven into the ball of the plant, which,

I consider, injures the fibre, and makes the plant appear unsightly."

A new way of growing the plants is mentioned by Mr. Paxton, in the *Magazine of Botany*, as practised by him at Chatsworth. "The plants were turned out of their pots, and all the loose earth removed from them; a small quantity of turfy peat was placed round each root, the whole covered with moss, about two inches thick, and then neatly tied up with small tarred twine. The plants were then suspended, in an inverted position, from the rafters of a plant stove, and they were syringed twice a day through the growing season: they grew admirably; in three months the roots had protruded through the moss so much as to require a second coat of moss. This experiment was commenced in February, and in the course of the season the whole of the plants, with the exception of the pereskias, produced bloom, some of them two or three times . . . . *Epiphyllum truncatum*, thus treated, is a most beautiful object, and may be had in flower throughout the season." The following species were subjected to the experiment:—*Epiphyllum speciosum*, *truncatum*, *Ackermanni*, and *splendidum*; *Cereus speciosissimus* and *flagelliformis*; several *ripsalises* and *pereskias*. The temperature of the house, when the plants are in a growing state, is kept from 55° to 65°; but when the young shoots are matured they are removed to a lower temperature, from 40° to 50°, where they are allowed to stand until they are wanted to flower, when they are taken back to their former habitation.

We should be glad to see this experiment tried by some of our amateurs; the plants would have a unique appearance when in full bloom—and, suspended from the rafters, would resemble epiphytes, which are now so fashionable among the amateurs and nobility of England.

The propagation of the different species is simple and easy: a cutting taken off at almost any season of the year, and laid by a week or two, to heal up the wound, and then potted, will generally root and send up new shoots in the course of a few weeks. The cuttings should be put into the same soil as recommended for the plants, and should be rather sparingly watered till they begin to grow. Afterward they require the same treatment as established plants. The *Echinocactus* produces offsets very slowly; but if old plants are cut transversely, as practised by the French gardener mentioned in the extract from M. Turpin's paper, an abundance will be the result.

All the smaller kinds may be grafted successfully on the stronger ones, as the *Cereus triangularis* and *speciosissimus*; the *Epiphyllum truncatum* grafted on the former is said to be an elegant object when in bloom. We have given an account of some plants managed in this way at p. 272–3. Mr. Wilder has a few

plants grafted in this manner, and, as will be seen in another page, Mr. Haggerston, at Belmont Place, has also grafted a large plant of *C. triangularis* with more than fifty scions of nearly half as many sorts.

The production of new varieties from seed is beginning to attract the attention of our amateurs and nurserymen. Mr. Hogg, of New York, has a number of seedlings, raised, we believe, from the speciosissimus. Mr. Feast, of Baltimore, has raised several new varieties, which are said to be very splendid. The field for practice is extensive, and the tribe an interesting one; and it would not surprise us to see the present catalogue of species and varieties in a few years extended to a great length, by the addition of magnificent varieties of exclusively American production.

Several of the tribe are well adapted for cultivation in parlors, especially in those that are warmed by Anthracite coal, which gives out such a dry heat as to injure nearly all other plants. The *Epiphyllum speciosum* is now considerably cultivated as a parlor inhabitant, and the other species may be as easily managed as that. The temperature during winter is fully sufficient for the developement of the flowers, and in summer the open air is the most proper place in which they can be put. *Epiphyllum truncatum* is exquisite for this purpose, as it begins to flower in the fall, and continues in bloom till nearly midwinter; it is soon succeeded by others, until the *Echinocactus Eyriesii* appears in July. We hope that more attention will be given to the tribe by admirers of parlor plants, as we are well assured that they will more amply repay their trouble than any other family. At some future time we intend to give a list of all the fine species and varieties of the *Cactacæ* really worth growing, so that any one wishing to make a selection will have something to guide him in choosing the best and most valuable. The length of this article has necessitated us to omit such at this time.

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ART. IV. *Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some Account of those which it would be desirable to introduce into our Gardens.*

*Edwards's Botanical Register*, or Ornamental Flower Garden and Shrubbery. Each number containing eight figures of Plants

and Shrubs. In monthly numbers; 4s. colored, 3s. plain. Edited by John Lindley, Ph. D., F. R. S., L. S., and G. S. Professor of Botany in the University of London.

*Curtis's Botanical Magazine*, or Flower Garden Displayed, containing eight plates. In monthly numbers; 3s. 6d. colored, 3s. plain. Edited by Sir W. J. Hooker, L.L. D., F. R. A., and L. S., Regius Professor of Botany in the University of Glasgow.

*Paxton's Magazine of Botany*, and Register of Flowering Plants. Each number containing four colored plates. In monthly numbers; 2s. 6d. each.

*The Horticultural Journal*, *Florist's Register*, and *Royal Ladies' Magazine*. Dedicated to the Queen, Patroness, the Rt. Hon. the Earl of Errol, President, and the Vice Presidents of the Metropolitan Society of Florists and Amateurs. In monthly 8vo numbers, with a plate; 1s. each.

## DICOTYLEDONOUS, POLYPETALOUS, PLANTS.

### *Ranunculaceæ.*

#### DELPHINIUM

*Intermedium Aiton Variable* Larkspur. A hardy perennial plant; growing six or seven feet high; with blue flowers; appearing in June; propagated by seeds and division of the roots. Bot. Reg., 1863.

*D. alpinum* of *Waldstein and Kützing*, from Hungary, *D. elatum* of many authors, *D. palmatifidum* of *De Candolle*, in part, and probably of some others.

“One of the commonest of all perennials in the botanic gardens, [of England,] where it grows six or seven feet high, in rich soil, and forms a beautiful object, if allowed to spring among bushes which partially support the branches, and prevent their being broken by the wind.” Described with a tall branching stem, glaucous at the upper part, and either downy or smooth towards the ground; leaves having a palmated figure, with from three to seven deep incised lobes, and either hairy or perfectly smooth, their petiole being round; smooth, glaucous, branched or simple racemes of flowers, of a blue color, which is either deep, or so pale as to be almost white; and a total absence of hairs from all parts connected with the flowers, except the disk of the two-lobed petals. These characters include a variety of plants found from the Pyrenees to Kamschatka, designated by botanists under various names, but which all belong to one and the same species. Dr. Lindley states that botanic gardens swarm with specific names, all belonging to little varieties, “which those who judge of the vegetable kingdom by its appearance in the masquerade warehouse of a gardener, or who are not aware that a difference and a distinction must not be confounded, actually believe to be so many natural species.” To figure all such would be a waste of time and paper; and only those which are striking enough to render a mistake about them probable will be given. It should be grown together with the montanum and the other well known species and varieties. (*Bot. Reg.*, June.)

### *Onagrææ.*

**EUCHARIIDIUM** (from *eukaris*, in the sense of agreeable; in allusion to the appearance of this plant *Fischer & Meyer*)  
*concinnum Fischer & Meyer* Neat *Eucharidium*. An annual plant; growing a foot high; with lilac colored flowers; appearing in summer; a native of California; introduced in 1836. *Bot. Reg.*, 1862.

“Although not to be compared with *Clárkia pulchélla* in point of beauty, it is a neat and by no means weedy plant, and perfectly hardy.” In habit very similar to the *Clárkia*, to which it is allied, but rather more erect in its growth. It flowers about six weeks from the time of sowing the seed. Found near the Russian colony of Ross, in New California, and sent to the London Horticultural Society’s garden from that of the Imperial at St. Petersburg. Worthy of introduction to our gardens. (*Bot. Reg.*, June.)

### *Fabæcæ or Leguminosæ.*

#### **DILLWYNIA**

*glycinifolia* *Glycine-leaved Dillwynia*. A green-house plant; growing three or four feet high; with yellow and purple flowers; appearing in February and March; propagated by cuttings; grown in peat, loam and sand. *Fax. Mag. Bot.*, Vol. IV, p. 29.

One of the most interesting and beautiful of Australian plants. The flowers are purple, and are disposed in terminal racemes. The habit of the plant is slender, with rather procumbent stems and linear ovate brownish leaves. It was introduced to English collections five or six years since, and flowered first in the nursery of Mr. Knight of Chelsea. Like all the Australian plants, very few of which are yet found in the gardens of this country, it is rather difficult of cultivation, though in a much less degree than many others, and the following valuable information on their growth, supplied by Mr. Paxton, will not be out of place here. After stating that the subject of these remarks thrives well in sandy heath mould, with a very little loam, placed in an airy situation in a cool green-house, or pit where the frost is merely excluded, he continues, “in watering, it is well to observe that caution so necessary to the growth of all Australian plants; for it is clear to us, that the many instances of indifferent success in cultivating plants from that part of the world are almost exclusively owing to injudicious watering. Many of our most valuable green-house plants, if once suffered to flag or droop, will rarely recover without the loss of some of the leaves, or a portion of the shoots, and, sad to say, in many instances the plants die: oftentimes bad soil and careless potting are the causes of languor and ill health in some; still, plants in this state, if carefully shifted into suitable compost, are very often found to recover; but when once an indication of sickness arising from immoderate watering is seen, death is almost a certain consequence. The compost which is in general used for Australian plants, comprises peat, loam, and sand, in different proportions. In our judgment, one part of peat should never be employed to less than two parts of

loam; and if both peat and loam contain a good portion of sand in themselves, little besides need be added. In some instances it is not necessary to use loam in the composition at all, and it now and then happens that less peat than loam is required; but whether the proportions are necessarily equal or unequal, it is always best to incorporate such a quantity of sand as will be sufficient to keep the whole from binding or setting in the pot. In potting it is essential to pack the soil close down by the side of the old ball, by pressing it with the hand or potting stick; for if suffered to remain hollow or slack, the roots do not thrive. The pots should always be well drained at the bottom, in order to let the water pass freely. Water should not be administered when the soil appears full of moisture, or when it feels in the least soddened, especially during winter." These excellent hints apply to all the delicate fibrous rooted plants, such as ericas, &c., and should be read and re-read, to impress upon the memory the importance of judicious repotting and watering.

The drawing was taken from a fine specimen furnished by Messrs. Lucombe, Pince & Co., of Exeter, in whose collection it flowered, in February last. (*Pax. Mag. Bot.*, June.)

*The purple Laburnum.*—Much has been written in the English periodicals within a year or two in respect to a new variety of the laburnum, with purple or scarlet blossoms, sent from France under the name of *Cytisus Laburnum coccineum*. Like all new things, everybody was eager to get it, so much was expected from it. Those who knew the tricks of foreign dealers cautioned their friends against allowing their expectations to be too sanguine. Plants sold rapidly, and the flowers from them were looked after with great interest. Dr. Lindley states that it is "needless to describe the disappointment that was felt" when the scarlet laburnum first produced its dull, dingy, dirty purple clusters. "And yet, what else could have been anticipated? for it was well known that the origin of the variety was between *C. purpureus* and *C. Laburnum*. Surely nothing better ought to have been expected from an intermixture so monstrous in regard to the habit of the two parents, and so unpromising as their colors." The specimen figured is pretty, having long pendant racemes of dull purple and yellow flowers. It certainly would be an ornament to the pleasure ground, though not equal to the *C. Laburnum*. (*Bot. Reg.*, June.)

### *Euphorbiaceæ.*

**POINSETTIA** Graham (In compliment to the Hon. J. E. Poinsett, of South Carolina, who introduced it from Mexico to the gardens of this country.)

*pulcherrima* Beautiful Poinsettia. A stove shrub; growing six or eight feet high; with brilliant scarlet bracts; appearing in January or February; propagated by cuttings; grown in sandy loam and vegetable mould; a native of Mexico. *Pax. Mag. Bot.*, Vol. IV, p. 97. Synonyms: *Euphorbia pulcherrima* Willd. *E. Poinsettia* of the gardens.

Information respecting the new generic name of this beautiful



plant is given in our II, pp. 259, 295 and 417, and also in several places in our first and second volumes. It is too well known to require any additional remarks. But as a correspondent has asked for the specific character and distinctions which separate it from the Linnæan *Euphórbia*, (vol. II, p. 436,) we annex the following, furnished by Dr. Graham for the *Bot. Mag.*

*“Generic Character.*—*Involucrum* four-pieced. *Flowers* partially stalked, naked. *Male flowers* in two parts, one stamined. *Female flowers* solitary. *Germen* three-lobed. *Ovulum* solitary, with single lobes.

*“Specific Character.*—*Shrub* erect, ramous: branches round, young shoots bluntly four-angled, green, glabrous, hollow. *Leaves* scattered, occasionally opposite, spreading, petiolate, ovate-elliptical, rubacete, sinuated, veined, soft and pubescent on both sides, bright green above, paler below. *Petioles* furrowed above. *Bractææ* similar in shape to the leaves, but aggregated, at the extremities of the branches, and splendid vermilion color, paler below. *Cymes* terminal, subtrifid, at length falling off at a joint in the common footstalk. *Involucres* on short footstalks, articulated at the base, green, ovate orbicular, toothed, marked by five sutures on the outside, with which, alternate on the inside, five falcate processes, beginning with the narrow extremities at the mouth of the involucre, and, adhering to this, with their backs becoming gradually broader below, passing inwards, and attached to an elevation in the centre, they divide the lower part of the involucre into five distinct cells, and supporting on their edges erect fimbriæ, they divide the upper part also, but less completely. *Teeth* of the involucre numerous, colored like the bractææ, woolly on the inside, connivent. *Appendages* single, on the outside of the involucre, towards the axis of the cyme, round, entire, peltate, folded in the middle, so as to appear two-lipped, nectariferous; four yellow teeth placed around the mouth of the involucre, are abortive appendages. *Male flowers* about fourteen, in two rows in each loculament, and rising from its base, erect, petiolate, naked, monandrous, mixed with chaffs, (abortive male flowers?) which are woolly at the apex, and occasionally tinged red there. *Petioles* colorless, as long as the involucre. *Filament* red. *Anthers* two-lobed, lobes divaricated, so that those which are next each other in the two rows overlap, opening at a deep furrow along their outside. *Pollen granules* yellow, lenticular. *Female flowers* solitary, central, on a short stout pedicle, naked. *Germen* three-lobed, each lobe emarginate; style wanting (?), ovule solitary in each lobe. These appearances I describe as I saw them, but the female flowers were probably imperfect, more enlarged, projected beyond the involucre, nor produced seed; but, after a while, a small number of the male flowers, having been perfected, and protruded beyond their involucre, this became yellow, and operated as the articulation, near the base of the footstalk, the bractææ for some time remaining, and then the whole cyme dropped at the articulation in the common peduncle.”

As regards its cultivation, though an article will be found in vol. II, p. 58, Mr. Paxton states that “it grows well in a hot-stove, potted in good open, rather sandy, loam, mixed with a little reduced dung or vegetable mould, and in order to keep it in a clean free-growing state, it requires plenty of water at the roots, and frequently to be carefully syringed all over the leaves and branches; this will encourage the latter to swell, and the former to develope, the result of which will be large, healthy, high

colored bractæ, at the termination of every branch." It is easily propagated, and should be in every stove collection. Nothing can excel the beauty of a large plant, with every branch terminated with its superb scarlet bractæ, twenty inches across. The finest specimens that we have ever seen were those grown by our correspondent, Mr. Mackenzie, of Lemon Hill, late the residence of H. Pratt, Esq., Philadelphia. (*Pax. Mag. Bot.*, June.)

## DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

### *Ericaceæ.*

LEUCOTHOE D. Don (A poetic name.)

*floribunda* Bundle-flowered Leucothoe. A green-house plant; growing eight or ten feet high; with white flowers; appearing in March and April; a native of Georgia; cultivated in sandy peat; propagated by layers or seeds; introduced in 1811. *Pax. Mag. Bot.*, Vol. IV, p. 101.

Synonymie: *Andrœmeda floribunda*.

A beautiful green-house shrub; a native of the mountains of Georgia, from whence it was introduced to England. Its habit is similar to our more common andromedas, but the flowers of this species "which are of a snowy whiteness, literally cover the plant." In England the buds are formed in the fall, and remain unopened until the ensuing spring, "when about March or April they begin to expand, and assume that exquisite whiteness which forms so striking and beautiful a contrast with its own and other surrounding foliage." The flowers appear in axillary and terminal racemes, forming large panicles. It continues in flower upwards of six weeks.

Mr. Paxton states, that "though considered quite hardy in England, it has been, at Chatsworth, treated in the green-house, where, in consequence of the flowers existing in an unopened state through the winter, it appears to us as the only place in which they are likely to be brought to perfection." In the open ground the shoots are liable to be damaged by early frosts. It requires a liberal supply of water when in a growing state, if standing in a pot. Rather difficult of propagation, the best mode being by seeds. Although it has been in British collections for upwards of twenty years, it is still a rare plant, and commands a high price. We believe they have been imported into this country at the enormous rate of £2, 10s. each. We are happy to see such a zeal manifested for the plants of this tribe; but it seems a waste of expense to import plants from abroad at such a price, when they can be procured in abundance at home. It should, however, be in the collections of all lovers of heaths and other ericaceous plants. (*Pax. Mag. Bot.*, June.)

### *Schrophulariædæ.*

REHMANNIA Libosch. (An unexplained name.)

*chinensis* Fischer & Meyer Chinese Rehmannia. A green-house plant; growing two feet high; flowers purple; appearing in July; a native of the north of China, readily multiplied by cuttings. *Bot. Reg.*, 1860.

Synonymie: *Digitaria glutinosa* Guss. *Gerardia glutinosa* Bunge *Rehmannia glutinosa* Libosch

Of no great beauty, although great expectations were formed of it, from the reputed size of the flowers before it was introduced to England. It is perennial, with obovate, dentate leaves, and terminal spikes of dull purple tubulous flowers. It was received from the Imperial Garden at St. Petersburg, in 1835, and flowered in the garden of the London Horticultural Society, in 1836. (*Bot. Reg.*, June.)

### *Hydroledææ.*

**WIGANDIA** Kunth (Named in compliment to John Wigand, a bishop of Pomerania.)  
*caracasana* Humb. Bonpl. and Kunth *Caracas Wigandia*. A stove shrub; growing about six feet high; with lilac colored flowers; appearing at different periods; a native of the Caracas. *Bot. Reg.*, 1966.

A rather interesting shrub, with terminal panicles of delicate lilac blossoms, which continue to open in succession for a great length of time. It was originally found in Caraccas, at the Quebrada of Cotecita, at the height of 2880 feet above the level of the sea, and introduced to the Royal Garden at Berlin, from whence it was sent to his Grace the Duke of Northumberland, in whose collection it flowered. (*Bot. Reg.*, June.)

## MONOCOTYLEDONOUS PLANTS.

### *Amaryllidææ.*

#### **HABRANTHUS**

*gracilifolius* var. *Boothianus* Herb. Mr. Booth's slender-leaved *Habranthus*. A green-house or frame bulb; growing about eight inches high; with bright pink flowers; appearing in October; a native of Maldonado, in South America; cultivated in loam, peat and sand. *Bot. Reg.*, 1967.

A beautiful variety, with delicate pale pink flowers, appearing in October, and continuing in beauty eight or ten days. The flowers are solitary, nodding, on a round, purplish colored peduncle.

Mr. Booth, who sent Dr. Lindley the drawing and description, states that the bulb is half hardy, only requiring protection from frost; that it thrives pretty well in a mixture of loam, peat and sand, although he has not yet been able to increase it. Equally as beautiful as the other species. (*Bot. Reg.*, June.)

We have now in flower *H. Andersoni* and *robustus*, both very handsome, and somewhat similar in appearance to the one above noticed. Several bulbs have expanded two or three flowers each.

### *Orchidææ.*

#### **EPIDENDRUM**

*nocturnum* var. *latifolium* Lindl. Broad-leaved night-smelling *Epidendrum*. A stove epiphyte; growing a foot high; with white flowers; appearing in September; a native of Martinique. *Bot. Reg.*, 1961.

"The original *Epidendrum nocturnum* was found by Jacquin, filling the mountainous woods of Martinique with its fragrance at night, and is now common in our hot-houses." The present subject flowered in the collection of the Duke of Devonshire, at Chatsworth, in September last; it differs from the species in

its larger flowers and broader leaves. Beyond the fragrance its blossoms possess, it has no great claims upon the admirer of the orchideous family. Common in English collections. (*Bot. Reg.*, June.)

#### BOLBOPHYLLUM

*cocoinum* Lindl. Cocoonut Bolbophyllum. A stove epiphyte; growing a foot high; with flesh colored flowers; appearing in January; a native of Sierra Leone. *Bot. Reg.*, 1864.

“Related to *B. recurvum*, *tetragonum*, and the others in their neighborhood, but is readily known by the pale flesh colored flowers, the serrated petals and the concave lip, delicately ciliated towards its base.” The flowers, which are small, are produced on a long, erect and graceful spike, presenting a pretty appearance when in bloom. Introduced from Sierra Leone, where it grows on the cocoonut palm. Flowered both in the collection of the Messrs. Loddiges and Mr. Bateman, in January, 1835. (*Bot. Reg.*, June.)

#### ART. V. Calls at Gardens and Nurseries.

*Belmont Place, Mr. Cushing's.*—*Aug. 15.* The grounds at this place are fast filling up with the growth of the various new trees and shrubs which have been planted within the two past years. The belt of evergreens bordering the lawn, next to the main road, together with the various clumps upon it, have made an excellent growth, and present a vigorous and healthy appearance. In the rear of the splendid range of houses, near the forcing ground, some Scotch larches, balsams, firs, yews, &c., which were planted on a small triangular spot, have made stronger shoots than any that we ever saw. The Scotch larch should be generally introduced into the gardens of this country; it is a beautiful tree, of a graceful habit, and a rapid grower; it is perfectly hardy, none of the shoots on those at Mr. Cushing's having been affected in the least by the severity of our winters.

In passing through the range of green-houses, &c., we were much pleased at the well kept order of each department. The graperies were bearing good crops of fruit, for young vines which have been planted out only one year. Mr. Haggerston tried an experiment the past spring, to retard the crop of one of the graperies as much as possible. His method was as follows:—early in the spring, before the weather was warm, the sashes of the roof were covered with boards, to exclude the rays of the sun: the border was also covered, to prevent the earth from becoming heated, otherwise the sashes covered with boards would have been of no use, as the sun's rays, acting upon the soil, would set the sap in motion, and the eyes would have immediately broken; the graperies were kept shut up close. This covering was continued until the vines showed symptoms of breaking their buds: the whole was then removed, and the vines treated in the same manner as in the adjoining graperies. The

result has been fully equal to Mr. Haggerston's anticipations; the grapes in the grapery where no fire was used, and where the vines were allowed as much air and light as possible, are now just beginning to color, while the berries on the clusters of those in the one which the experiment of retarding was tried upon, are but little larger than peas—at least three weeks behind the former. Possibly it may require fire heat to ripen them off. By pursuing this experiment, which, Mr. Haggerston informs us he intends to, the vines will be retarded another fortnight next season, the same time the next year, and in the same manner every year, until, he thinks, their bearing season will have been completely reversed. We are not confident that retarding can be performed beyond a certain time by this mode: we are well aware that forcing by using fire heat three or four weeks sooner, each season, than the preceding one, will reverse the season of bearing; it is easy to create heat, but it is hard to prevent the vines from starting during the hot weather of our summers, unless other means are resorted to than merely covering the borders of, and the sashes on, graperies where they are grown, with boards. The air of graperies might be kept cool enough to prevent vegetation from proceeding, by occasionally putting in quantities of ice, covering the sashes with boards, keeping the doors closed, and by covering the border to a good depth with tan; in this manner we are not certain but what the object of reversing their season of bearing might be wholly effected, but by no other method. We shall look, however, to Mr. Haggerston's experiment, with much interest. The wood for next year's crop is exceedingly large and well grown.

In one of the stoves, (both of which have in fact become pineries,) are upwards of eighty pines in a fruiting state, and some have already begun to swell off, as the term is when they begin to color; there are six kinds now ripening, among which are the black Antigua, Providence, and Globe: the former are already of tolerable size, and will undoubtedly arrive at the weight of six or eight pounds. It is gratifying to see such a fine number of plants, and we may date the present time as the commencement of the taste for growing this "king of fruits," as it has been justly and truly denominated. In the other stove the pine is full of succession plants, which will produce a better crop, than the present one, next year; the plants look very well, are entirely free from the scale or any other insect, and are growing vigorously. Pines are easier to grow than cucumbers, when forced, and we hope that every gentleman who is fond of fine fruit will possess a pinery.

We had nearly forgot to notice one or two fine specimens of grapes in pots which were standing in one of the graperies; the grapes were ripe some time since, and Mr. Haggerston informed us he was reserving them for exhibition the ensuing month. We certainly never saw a finer crop upon the same amount of wood; some of the clusters would weigh, we should judge, at least one and a half pounds. Grapes, from vines in pots, have been cut here ever since the month of April. Two dwarf apple trees, in pots, had each a fine large fruit upon them.

In the green-house we found but little that was interesting at this season, although most of the stove plants had been removed into it; the pines requiring a high heat to ripen off the fruit, it was found necessary to remove the plants, which usually remain there during the summer. *Passiflora Kermesina*, since last winter, has attained a considerable height, and had several flowers expanded; it is the finest of the lobed-leaved species, excelling the *racemosa*. *Amaryllis Belladonna*, several pots of, was in bloom, having thrown up their flower stems rather prematurely. A number of plants of *Trevirana coccinea* were the prettiest ornaments of the green-house. *Stapelia grandiflora* was expanding several flowers. *Alstroemeria Pelegrina* was beautifully in

bloom. Intermixed with the other plants, and placed at intervals on the stage, were a great number of plants of *Lobelia fulgens*; these, with their numerous spikes of brilliant scarlet blossoms stretching above the surrounding foliage, had an exceedingly showy appearance: this is what we have been urging upon amateurs and gardeners; the green-house may be made as much a place of ornament in summer as in winter, and instead of the bare shelves and stages, present one mass of living verdure, covered with the varied hues that the open garden presents when in its greatest splendor. A species of *Nerine*, probably *N. aurea Sweet*, with yellow flowers, was very superb; *N. corusca* had been most brilliantly in bloom, a week or two previous. The hibiscuses were flowering profusely. *Wistaria Consequana* has been planted out here since our last visit, and is trained up the rafters; it has already made a fine growth, and may possibly flower the ensuing year.

Among the few flowering plants remaining in the stove were the *Ipomœa paniculata*, *Combretum purpureum*, *Nymphœa cœrulea*, and Chinese hibiscuses: the combretum was superbly in blossom; one or two capsules of seed were formed, and Mr. Haggerston was in hopes to ripen them. On the old plant of *Cereus triangularis* here, trained to the back wall, has been grafted a great number of scions of about all the species and varieties in the collection; the scions all look finely, and, we have no doubt, will every one grow; if they do, the plant will have a singular and splendid appearance, from the varied size and color of the blossoms. Since our last notice (p. 272,) of the practice of grafting in England, several amateurs have been induced to try the experiment. Grafting is easily performed, and the *C. triangularis* grows rapidly, producing fine stocks in one season.

Passing round the garden, we noticed in front of the large range of houses, and bordering the walk, a row of mignonette extending the whole length, the fragrance from which filled the garden; this is the manner in which this delightfully odoriferous plant should be treated—a plant or two is little better than none; it should be sown in large patches. Dahlias have not been planted out here so abundantly this season as heretofore; but what plants we saw were blooming more profusely than they did last year. We were sorry to see that Mr. Cushing had less roots planted than usual, when the new varieties are so much superior to those of last year; but, owing to the soil, or some other cause, they have not flowered so well as they ought to have done, and this is, we presume, one reason. There were some fine new pentstemons in bloom, which were raised from seeds received from Mrs. Marryat.

The American shrubs here, which we have noticed before, are looking excellently, and many of the rhododendrons, laurels, rhododas, azaleas, &c. are making fine buds for next season; the magnolias, as well as the others, have made strong and vigorous growths: in a year or two the border will present one mass of evergreen foliage. Every amateur should see these plants, as we are sure it would be the means of inducing them to pay more attention to them. The roses planted out in the spring on part of the westerly wall border have covered the ground with some of the most luxuriant shoots we ever saw. One of the finest displays of blossoms may be expected next season.

In the kitchen garden, adjoining the wall, Mr. Haggerston showed us a plantation of young plants of the *Maclura aurantiaca*, or osage orange, which, as soon as they acquire a little size, will be set out as a hedge. An opportunity will then be afforded of testing its hardiness and adaptness to our climate as a hedge plant; they were growing well, and some of them were two feet or more high. The grounds throughout were in high keeping.

*Oakley Place, Wm. Pratt's.*—We called here mostly to see the

grapes, of which Mr. McLennan has a heavy crop, for the age of the vines; some of the clusters were very heavy, and the whole were well colored and well flavored. They certainly do credit to his good management. We tasted of a kind called the Muscadine, which appeared to be different from the sweet water: it was exceedingly rich and sweet.

In the garden the dahlias are here the main flowers, and they were doing well; the collection does not embrace very many of the rare sorts, but mostly the good ones of the older varieties, such as the Countess of Liverpool, Dennisi, &c. &c. A row of *Gladiolus natalensis* was very showy, with from two to four spikes of flowers to each bulb. Several plants of that new and superbly rich annual, the *Calliopsis tinctoria* var. *atrosanguinea*, were the most attractive things in the border—glistening, in the sun, like precious gems; it is truly one of the greatest acquisitions that has been made to our annuals. Many other pretty herbaceous plants were in flower, but we had no time to notice them particularly. The garden looked neat and clean.

*Mr. Sweetser's Garden.*—The principal show now is the dahlias, which are coming on in all their splendor. A magnificent yellow one of this year is the Golden Sovereign. Napoleon (puce,) and Duke of Bedford (purple,) are also brilliant self colored ones. Before the close of the dahlia season we shall notice several of the best which have come out this year.

## MISCELLANEOUS INTELLIGENCE.

### ART. I. General Notices.

*Value of Specific Characters.*—M. Wiegmann, in a letter addressed to the conductor of the botanical periodical called the *Flora*, communicates some observations which he has made on this subject. The results which he obtained are not at all favorable to the opinion of those authors who elevate to the rank of a species slight differences in form, commonly produced by the influence of the climate or the locality. Some genera, of which many species are cultivated in gardens, such as *Veronica*, *Verbascum*, *Delphinium*, *Thalictrum*, &c., contain many species of which the native country is unknown. Certainly, however, the change which culture produces, and the numerous hybrids, to the production of which botanic gardens are so favorable, from the proximity of the species of a genus, may easily explain the origin of some hundreds of species in our catalogues.

In 1833, the author saw a plant of *Allium Cæpa* bearing a bulb in the place of seeds. In the following spring he planted the bulb; and his astonishment was great when he saw, shortly after, springing up in his garden, *Allium proliferum* of Schrader and Sprengel, with a naked, flexible, weak stem, a proliferous umbel, and barren flowers on long footstalks. M. Wiegmann cites the numerous forms of *Iris* obtained by M. Berg; and the multiplicity of calceolarias, and other ornamental plants, as examples of these pseudo-species.

To this we may add the fact stated by M. Soyer-Willemet, (*Bon Cul-*

*tivateur*, Dec., 1835,) that various forms were obtained from the seeds of *Fúchsia globósa*.

M. Wiegmann, in noticing the results obtained by M. Koch' from the cultivation of seeds of *Taráxacum palústre*, (which results are communicated in *Ann. des Scien. Nat.*, ii, p. 119,) informs us that similar experiments made by him in 1828 furnished the same results; but that he was unwilling to publish them, fearing lest his observations should have been incorrectly made. The seeds of *Myosódis sylvática Ehr.* were sown by the author in the same locality, and produced five different sorts; and those of *Verónica agréstitis* gave birth to six different sorts. It is to be regretted that the author has not pointed out the names of the species thus obtained; for, in the case of *Myosódis* at least, this appears to us of considerable importance. He thinks that the numerous species of *Rúbus* of Weihe have been produced in the same manner. (*Flora*, 1835, p. 105, as quoted in the *Annales des Scien. Nat.* 2 s., tom. v. p. 377.—*Gard. Mag.*)

*Tulips*, when raised from seed, require a peculiarity in management, which would not readily occur to any cultivator who was not either a vegetable physiologist, a reader of books on florists' flowers, or a tulip-grower of great experience. The young bulb of the tulip is formed on the radicle which descends from the seed; and, when the seed is sown in a bed or in a deep pot of light free soil, the radicle will often penetrate to the bottom of the pot or bed, and scarcely produce any bulb at all. The same thing takes place with the different species of bulbous *Iris* when raised from seed, and, to a considerable extent, with seedling bulbs of every kind. In order to prevent this, and to cause the radicle to exhaust itself in the form of a bulb, instead of in the form of a long slender root, the seeds should be sown in pots or pans, not above three or four inches deep; or, if in beds, a bed of slates or tiles should be formed, three or four inches beneath the surface. When this is properly attended to, the bulbs produced by seedlings the first year will be as large as those of three years' growth, where no stop was given to the descent of the roots. This doctrine is very well illustrated by an engraving in Smith's *Florist's Magazine*, vol. i, p. 88. (*Gard. Mag.*)

*Connection between Meteorology and Vegetation.*—"M. Boussingault has addressed a note to the Académie des Sciences of Paris, which is entitled 'Comparative Examination of the Meteorological Circumstances under which our common Grains, (the *Cerealia*,) Turkey Wheat, (Maize,) and Potatoes, vegetate at the Equator, and in the Temperate Zone.' In this examination, the author has first made investigations into the time which elapses between the first springing of the plant and its full maturity. He then determined the temperature of the space of time which separates these two extreme epochs of vegetable life. By comparing these data concerning any given plant which is cultivated both in Europe and America, he arrives at this curious result: that the number of days that separate the commencement of vegetation from its maturity is more considerable in proportion as the mean temperature under the influence of which the plant grows is less; the duration of the vegetation will be equal, however different the climate may be, if this temperature is identical in the two places; and it will be shorter or longer, according as the mean heat of the period of time necessary for the accomplishment of the vegetation is itself greater or less; in other words, the duration of the vegetation appears to be in the inverse ratio of the mean temperatures. So that, if you multiply the number of days during which any given plant vegetates in these distant climates by the mean temperature of the actual period of its vegetation, you will obtain numbers which are very nearly equal. This result is not only remarkable, inasmuch as it seems to indicate that, under all



climates, the same annual plant receives, in the course of its existence, an equal quantity of heat; but it leads also to a direct practical result, in enabling us to decide upon the possibility of introducing any particular vegetable into a country, as soon as we know the mean temperature of the months there." (*Phil. Jour.*, vol. xxii, p. 383, 1837.—*Id.*)

*A Hybrid between the Cabbage and Horseradish* is said to have been produced by M. Sageret, of Paris. The plant has some seed-pods, which resemble the short pod, or silicula, of the *Cochleària*, and some the long pod siliqua of the *Brassica*. "In consequence of M. Sageret's statement, I tried, in 1835, to impregnate a plant of *Brassica* with the horseradish, and with the pollen of two or three other genera of *Cruciferae*; but I did not obtain a single seed from at least fifty flowers, on which the experiments were tried, all other flowers being cut off from the plant. I beg to be understood as not denying M. Sageret's assertion, but requiring better proof of the accuracy of a fact so important to science, in which he may be mistaken; and more detailed particulars, and especially the production of the plants; and I invite M. Sageret to communicate one of them to the Horticultural Society of London, that opportunities may be afforded of examining it carefully." (*Herbert's Amaryllidaceæ*, p. 353.—*Id.*)

*Transmitting Seeds from China*.—I have just got a very interesting collection of seeds direct from China. They are packed in a novel way, in little China jars, full of bone ashes, and tied over with bladder. They seem to have come very safe. The bladder smells of oil of sassafras. (*R. Mallet.—Gard. Mag.*)

## ART. II. Foreign Notices.

### ENGLAND.

*Raising Plants by Cross-breeding*.—The Rev. and Hon. Wm. Herbert, in his new work on the *Amaryllidaceæ*, strongly recommends to gardeners the study of cross breeding. "To the cultivators of ornamental plants," he says, "the facility of raising hybrid varieties affords an endless source of interest and amusement. He sees in the several species of each genus that he possesses the materials with which he must work; and he considers in what manner he can blend them to the best advantage, looking to the several gifts in which each excels, whether of hardiness to endure our seasons, of brilliancy in its colors, of delicacy in its markings, of fragrance, or stature, or profusion of blossom; and he may anticipate with tolerable accuracy the probable aspect of the intermediate plant which he is permitted to create; for that term may be figuratively applied to the introduction into the world of a natural object which has, probably, never existed in it." (*Herbert's Amaryllidaceæ*.)

*Grafting Epiphyllum truncatam on Pereskia aculeata*.—Mr. Symons, of Clowance, states, that he finds the *Epiphyllum truncatam* to flourish and blossom well when worked on the *Cactus triangularis*; but doubts whether it would do on the *Pereskia aculeata* or not. I should therefore wish to inform him that I have seen several remarkably fine plants of the *E. truncatam* worked on the *P. aculeata*, and flowering luxuriantly. They do, however, require support above the insertion, as the head is

apt, from its weight, to burst the bark, and disunite itself from the stock. The stock is headed down, and a notch cut in the end of it, so as to admit the graft, it being cut in the form of a wedge. We have several small plants in the Oxford garden doing pretty well; and at Moor Park, Hertfordshire, there were, in 1834, several very fine large plants grafted in this manner. (*W. H. B.—Gard. Mag.*)

## FRANCE.

*The Formation of Cork.*—M. Dutrochet communicated, at the last meeting of the Academy of Sciences, the results of his observations upon the formation of cork in various plants. Cork is generally supposed to be produced by a superabundance in the layer of cellular tissue, exterior to the fibrous layers of the bark, as in the *Quercus Sùber*; but M. Dutrochet states that, according to his observations, this substance has a different origin. The external coating of vegetables is composed of two parts: first, the epidermis, or cuticle, an extremely thin membrane, without any discernible organization; secondly, of a second membrane, composed of small cells, which was for a long time confounded with the epidermis, but has been very clearly distinguished from it by M. Adolphe Brongniart. This membrane, which M. Dutrochet has denominated the *tégument* or *peau cellulaire*, increases in thickness by the production of new cells upon its interior surface. According to him, it is this centripetal development that produces the cork. The parenchyma of the bark has no share in the production of this substance, unless we consider it as furnishing liquid nourishment, for the extraordinary development of the cellular tissue. It is proved, by this mode of growth, that cork is entirely composed of transverse rows of small cells, of which the oldest are on the outside, and the last formed on the inside. The tissue formed by their assemblage is disposed in layers. Each of these layers corresponds to one year's growth.

There is also a variety of the elm which produces cork; but it is only found on the branches, which are from eight to ten years old. After this age the production of cork ceases. It is particularly in this sort of cork, which differs little from that of *Quercus Sùber*, that M. Dutrochet has observed the mode of growth of this substance.

The interior of the prickles upon roses and brambles is occupied by true cork, of the same nature as the preceding. The same is the case in the prickles of *Xanthoxylum juglandifolium*. Among monocotyledonous plants, we find an instance of the production of cork in the *Tamus elephántipes*. It is upon the enormous rootstock of this plant that the formation takes place; and it is absolutely the same as other cork. (*L'Hermès*, Jan. 14, 1837.—*Gard. Mag.*)

*A hybrid Apple.*—M. Legall, president of the Society of Science and Arts of Rennes, has made known a very extraordinary instance of hybridity. It occurred in a variety of apple sprung from seeds probably fecundated by the pollen of a variety different from that which bore the flower. These apples were grown at the Gâteau of Brequigny; they are very large, and somewhat oblique at their base; of a fine red on one side and yellowish or greenish on the other. The two sides are of unequal thickness, and have a different odor. The flavor is also different; that of the red side being acid, whilst that of the yellow side is very sweet. It may be called an apple formed by the union of half a sweet apple, and half a sour apple. The seeds are scarcely ever perfectly developed, as in most hybrids; being commonly reduced to the envelopes, which, however, are very thick. (*Id.*)

## ART. III. Domestic Notices.

*Essex County Natural History Society.*—This Society has commenced with its exhibitions of flowers and fruits. We have been kindly furnished with a report of the first meeting, and are promised an account of all the fine things which may be presented for exhibition throughout the season. We shall give them all in connection in our December number, preferring to do so, rather than to give them in detached portions. As this was the first exhibition of the season, we give the following from the report sent us:—"The mildness and favorable state of the weather, not only of this day, [June 5,] but of those preceding, conspired to render this exhibition very interesting. Here were grouped together the showy plants of our gardens and green-houses, and the modest and humble species of the woods and meadows. The cactus, with its cluster of gorgeous and rich flowers, detracted nothing from the delicate arethusa; and the sweet-scented eglantine lost none of its charms in being compared with its more showy congeners, the varieties of our gardens." The contributors were Mrs. J. D. Treadwell, Mrs. E. S. Peabody, Miss A. D. Rogers, Messrs. F. Putnam, Wm. F. Gardner, Andrew Nichols, Wm. P. Richardson, J. M. Ives, E. L. Page, H. Wheatland, and John Gardner. Mr. F. Putnam presented a great variety of roses, and a specimen of *Pædônia albiflora* *Reevèsi*, (see p. 287.) Our correspondent will confer a favor by sending his reports in early.—*Cond.*

*Downer Cherry.*—We have been presented, by the grower of this most superior fruit, Mr. S. Downer, of Dorchester, with some specimens, which equalled, in size and quality, any we have ever tasted. This variety was produced from seed, many years since, and the old tree has now attained a great size, and the variety is very generally distributed throughout the country, through the medium of the nurseries. Every season the old tree has produced an abundant crop. The fruit ripens among the latest sorts, and, from its size, beauty, delicacy, and rich taste, deserves to be ranked among the finest that have ever been produced. We intend to give some history of this tree in a future number.—*Cond.*

*Private Exhibition of Flowers at Philadelphia.*—A kind of *conversations* or private exhibition, among the florists of our city and vicinity, was held on Tuesday evening, Aug. 15th, at the Athenæum, in South Fifth Street, where the gaudy dahlia was among the most conspicuous of the flowers exhibited. Mr. Buist showed some magnificent specimens. (*Sat. Cour.*) We are glad to see private exhibitions of the dahlia take place, and we hope the amateurs of Boston and vicinity will adopt the same method of exhibiting this magnificent flower.—*Cond.*

*New Seedling Pansy.*—A splendid new variety of the pansy has been raised from seed by Mr. Charles Buel, of Albany. The parent was Monk's Conqueror, a very beautiful variety.—*Cond.*

*Fountains in the Public Squares in Philadelphia.*—We learn from the *Saturday Courier*, that a marble basin and fountain are to be placed in the Franklin Square, in that city. We have often wondered, that, with the supply of water which the celebrated water works of the city afford, fountains have not been before constructed. They will add greatly to the coolness and freshness of that beautiful city promenade. We hope that when the water project of the corporation of the city of Boston shall have been completed ! some effort will be made to erect a fountain on the beautiful piece of ground generally called the Boston common (!) But this is perhaps anticipating too much; in mat-

ters of taste connected with the ornamenting of this place it would be worse than useless to offer any suggestions, when a committee of the corporation have already erected a flag-staff, to detract from the repose of the scenery, and lead the promenader to imagine himself upon a parade ground, or present at some holiday show. It should be removed from the spot forthwith.—*Cond.*

*Phlox Drummondii*.—I have a plant of *Phlox Drummondii*, raised from a cutting, the present season. It is beautiful and a constant flowerer.—*Yours, J., Aug. 12, 1837.*

*Verbena vendosa*.—This plant, which I raised from seed, last season, and kept in the house through the winter, is beautiful, and flowers most profusely. The second season is necessary to the full development of its excellence.—*Id.*

*Green and Hot-house Plants*.—It will be seen, by an advertisement in our advertising sheet, that Mr. Knevels, of Newburgh, N. Y. intends selling off a portion of the duplicate specimens in his collection. We have no doubt the sale will afford a rare chance of obtaining fine specimens of many plants.—*Cond.*

*Rhododendron arboreum*.—A remarkably beautiful specimen of this species was exhibited at a late meeting of the Horticultural Society of Charleston, S. C., by Dr. Winthrop. The specimen he has cultivated in the open ground for three or four years, taking only the precaution of a slight protection from the heat of summer and the cold of winter. It was very large and in a flourishing condition. (*Southern Agriculturist*.) A great many fine plants were exhibited at the same meeting, an account of which we shall give in our December number. We hope Dr. Winthrop or some of our friends will send us reports of the future meetings of the Society, which we shall give with the preceding.—*Cond.*

*Baden Corn*.—This excellent variety, of which so much was said in the agricultural papers the past spring, has proved as we anticipated, in the climate of the New England States. We have several plants, the seeds of which were sown very early in the season, but none of the stalks as yet show the least signs of silking; the probability is that this kind will not attain perfection this side of Maryland.—*Cond.*

#### ART. IV. *Queries, Answers, &c.*

*Management of old Geraniums, and other Plants*, (p. 292.)—In reading Mr. Hogg's paper on the geranium, let me hint that, in place of throwing away the parent plants after the cuttings are taken off, they should be preserved in sand under the stage of the green-house, until the next summer, and then planted in the open ground, where they will be early and splendid ornaments. The same process applied to a numerous class of green-house plants, enables us to anticipate the tedious and uncertain progress of our climate. I wish you would enlarge the list, as you no doubt can, by enumerating other plants which may well be preserved in any dry cellar, where there is no green-house, viz.

dahlias, many species of *Canna*, *hedychiums*, *Hibiscus Rôsa sinensis* and the varieties, *fuchsias*, *salvias*, *Datura arborea*, pomegranates, pelargoniums, &c. &c. I believe the principle can be much further extended by inducing a *fictitious* season of rest, for the natural one which all plants require.—*Yours*, J. W. K., *Newburgh, N. Y.*, Aug. 16, 1837.

#### ART. V. *Massachusetts Horticultural Society.*

*Saturday, July 29th, 1837.—Exhibited.* From T. Lee, Esq., cut flowers of roses and dahlias. From Messrs. Winship, a great variety of larkspurs and other flowers. From N. Davenport, a bouquet containing a great variety of flowers. From S. R. Johnson, a variety of rose. (the name unknown,) carnations, and several fine dahlias. From J. T. Buckingham, a great variety of poppies. From T. Willott, a fine bouquet. From Wm. Miller, carnations, fine pinks, dahlias and other flowers. From Jos. Breck & Co., *Calliopsis tinctoria* var. *atrosanguinea*, rocket larkspurs, stocks, annual lupins, and a number of dahlias. From Hovey & Co., several large bouquets. From S. Walker, large bouquets. From Wm. E. Carter, bouquets. From T. Mason, carnation pinks and dahlias. From Mr. Murphy, dahlias and a bouquet.

From R. Manning, Plumstone morello cherries. From R. Milne, gardener to M. P. Sawyer, Portland, fine peaches. From T. Willott, two fine clusters of black Hamburg grapes. From A. D. Williams, white and red currants. From S. Walker, seedling red currants. From J. T. Buckingham, white and black currants. From S. Newball, Dorchester, gooseberries. From D. Murphy, yellow Antwerp raspberries.

*Aug. 5th.—Exhibited.* From the Hon. John Lowell, flowering plants of *Cereus speciosissimus* and *Coburgia striatifolia*; cut flowers of *Stapelia reflexa*, *Piper nigrum*, *Hibiscus Rôsa sinensis* single and double red, *Calliopsis tinctoria*, and a variety of dahlias, viz. *Hermione*, Wm. Cobbett, Albion, *cedo nulli*, *purpurea elegans*, &c; also, a fine branch of *Coffea arabica*, or coffee tree, full of ripe fruit, and the foliage of the *Ficus elastica*. From S. Walker, carnations, a variety of dahlias, bouquets, and a fine specimen of *Yucca filamentosa*. From S. Sweetser, a bouquet containing a variety of flowers. From S. R. Johnson, cut flowers of the *Noisette Jaune Désprés*, Fellemborg, Countess of Albermarle, and Calvert *purpurea* roses; also, carnations, hollyhocks and dahlias. From Wm. Miller, pinks, roses and carnations. From Messrs. Winship, *Passiflora quadrangularis* and *hybrida*, *Cobæa scandens*, double and single Chinese hibiscuses, &c. From Jos. Breck & Co., several dahlias. From T. Mason, carnation pinks, dahlias and bouquets. From Hovey & Co., bouquets and dahlias, viz. *Red Rover*, *Douglas's Glory*, and *Bride of Abydos*; also, *Jaune Désprés*, yellow tea and yellow *Noisette* roses; *Alstrœmeria Pelegrina*, the new dark *calliopsis*, &c.

From T. Mason, *Franconia* raspberries. From E. M. Richards, early Harvest apples. From Hon. J. Lowell, sweet limes. From S. Pond, apricots. From Wm. Miller, gooseberries. From J. Donald,

gardener to M. P. Wilder, gooseberries. From John Chandler, Marblehead, gooseberries.

*August 12th.—Exhibited.* From S. R. Johnson, dahlias, viz. Viscountess Beresford, Criterion, Lady Fordwich, &c; carnations and pansies. From S. Sweetser, a bouquet, and dahlias, among which were Napoleon, Glory and Newby's Duke of Bedford. From Mr. Murphy, bouquets and dahlias. From Jos. Breck & Co., phloxes, purple Jacobæa, scarlet zinnias, and dahlias. From T. Mason, dahlias, carnation pinks, yellow Noisette rose, and a bouquet. From S. Walker, bouquets. From E. Vose, dahlias, among which were Gem and Glory. From Dr. J. C. Howard, dahlias, a bouquet, and a cut specimen of *Agapanthus umbellatus*. From M. P. Wilder, dahlias, viz. Conqueror of Europe, Gem, Napoleon, sulphurea elegans, Lavinia, Sir Henry Fletcher, Red Rover, Marquis, &c. From Hovey & Co., dahlias, viz. Gem, Hermione, purple Perfection, lilac Perfection, Niobe, Paragon, &c. &c. From Messrs. Winship, campanulas, *Clématis flammula*, *Verbena Aublétia*, delphiniums, &c.

From E. Vose, Madeleine pears, and Shropshirevine and early Harvest apples. From E. Breed, early Harvest apples, Juneating and sugar top pears, and royal George and Magdalen peaches, (the latter very handsome.) From E. M. Richards, Madeleine and sugar top pears, Brussels apricots, and early Harvest, early bough, Williams's favorite, red Juneating, and Curtis's early stripe apples. From E. W. Stone, Jamaica Plain, early Harvest, and russet apples, of the growth of 1835. From S. Phipps, Dorchester, plums, the name unknown. From E. H. Jones, Boston, Moorpark apricots. From T. Mason, Franconia raspberries, very fine.

*Aug. 19th.—Exhibited.* From S. Sweetser, fine dahlias, among which were golden Sovereign, Apollo, Napoleon, and Fair Rosamond; also, a beautiful bouquet. From S. R. Johnson, *Phlox Drummondii*, carnations, and dahlias, viz. Lady Ripon, Lady Fordwich, Criterion, Ariel, &c. From Wm. Kenrick, bouquets of flowers. From T. Mason, a bouquet of flowers, and several dahlias. From Messrs. Winship, cut flowers of *Clématis flammula*. From S. Walker, fine large bouquets, dahlias and pansies. From J. Donald, gardener to M. P. Wilder, a variety of dahlias, among which were Juliet, (Widnall's,) Rainbow, rosa superba, Rival yellow, sulphurea elegans, (Jones's,) Fisherton Rival, Marquis, Napoleon, Gem, Sir Henry Fletcher, Brown's Queen Elizabeth, and Jupiter. From Wm. E. Carter, a superb cut specimen of *Hedychium Gardnerianum*, and a variety of dahlias. From T. Lee, Esq., cut flowers of *Gerardia flava*, *Asclépias tuberosa*, *Clêthra alnifolia*, *Glycine apios*, *Cleome spinosa*, and roses. From Hovey & Co., large bouquets, and a variety of dahlias, viz. Beauty of Dulwich, Juliet, (Widnall's,) Gem, Queen Elizabeth, Marquis, Marchioness, lilac Perfection, Angelina, Apollo, Rainbow, cedo nulli, &c. &c.

From S. Downer, English red cheek, fine gold of summer, and Jargonelle pears; also, Williams's favorite apples, and early apricot and Italian damask plums. From S. Walker, green Chissel pears. From R. Manning, Bellissime d'eté and parfum d'aout or Juneating pears. From Mr. Clapp, S. Reading, early Harvest apples and early pears, (name unknown.) From J. Kendall, Worcester, fine plums, the name unknown. From J. L. F. Warren, monthly strawberries.

*Aug. 26th.—Exhibited.* From S. Sweetser, dahlias, viz. Rival yellow, yellow Perfection, Duke of Bedford, Napoleon, Lady Anne, (Hopwood's,) golden Sovereign, Fair Rosamond, King of Dahlias, Venus, Glory, Desdemona, &c. &c. From Hovey & Co., bouquets and dahlias, among which were Mrs. Broadwood, Juliet, Mary, (Dodd's,)

Beauty of Dulwich, Red Rover, Gem, Lavinia, Exemplar, Ariel, King of Dahlias, Bride of Abydos, Beauty of Camberwell, Zarah, Apollo, Criterion, &c. &c. From J. Donald, gardener to M. P. Wilder, dahlias, viz. Gem, Harlequin, golden Sovereign, sulphurea elegans, Lavinia, Marquis, Ariadne, Contender, (Mackenzie's), Cræsus, Sir Henry Fletcher, Red Rover, peerless white, &c. &c. From S. R. Johnson, cut flowers of the Noisette Jaune Désprés, Lamarque, Fellemberg, and new tea roses; also, dahlias, embracing Viscountess Beresford, Mrs. Wilkinson, Lady Fordwich, Criterion, &c. From S. Walker, fine dahlias and bouquets of flowers. From Mr. D. Murphy, a bouquet of flowers.

From Wm. E. Carter, dahlias, and cut flowers of *Erythrina Crista galli*, two species of *Dracocéphalum* *Madia elegans*, phloxes, and *Euphórbia corollata*: among the dahlias were the Duchess of Sutherland, Queen of Dahlias, &c. &c. From Wm. Leathe, Cambridgeport, a superb specimen of the golden Sovereign, with a number of other dahlias, viz. Polyphemus, Marchioness, Ariel, peerless white, &c. &c.

#### ART. VI. *Fulton Market, New York.*

*Vegetables.*—Potatoes, per bushel: common, 38 to 50 cts; Kidney, 63 to 75; sweet, per half peck, 32 cts. Turnips: per bunch, 3 to 4 cts; per bushel, 63 to 75 cts: Ruta Bagas, per bushel, 75 cts. Beets, per bunch: early turnip, 4 cts; long blood, 5 to 6 cts; long blood, per bushel, 63 to 75 cts. Parsnips, per bunch, 6 cts. Carrots, per bunch, 12 cts. Beans, per half peck: common, 10 to 12 cts; Lima, 25 cts; cranberry, 12 cts. Peas, per half peck, 9 cts. Onions, per dozen bunches, 12 cts.

Cabbages, each, 3 to 10 cts. Celery, per bunch, 12 cts. Lettuce, per dozen, 25 cts. Water cress, per half peck, 12 cts. Endive, per dozen, 25 cts. Indian corn, per dozen, 12 to 25 cts. Peppers, per hundred, 50 cts. to \$1. Cucumbers, per dozen, 8 to 9 cts. Melongenas, each, 15 to 25 cts. Tomatoes, per half peck, 32 cts. to \$1.25. Squashes, each: summer bush, 2 to 4 cts; winter crookneck, 8 to 12 cts. Pumpkins, each, 10 to 15. Parsley, per bunch, 2 cts.

*Fruit.*—Apples, per bushel: common, 75 cts; early bough, \$1 to \$1.50. summer pippins, \$2.25. Pears, per half peck: Harvard, 19 cts; Windsor, 12 cts; beurré, 19 to 25 cts. Peaches, per half peck, 50 cts. to \$1. Plums, per half peck: Damsons, 50 to 75 cts; green gages, 63 cts. Cherries, per pound, 10 cts. Grapes, hot-house, per pound, \$1.25; green, per half peck, 12 cts. Blackberries, per quart, 8 to 12 cts. Whortleberries, per quart, 6 to 15 cts. Melons, each: nutmeg, 6 to 25 cts; watermelons, 12 to 75 cts. Pine apples, each, 25 to 37 cts. Oranges, per dozen, 37 to 75 cts. Lemons, per dozen, 32 cts. Limes, per dozen, 12 to 19 cts. Citrons, each, 25 to 50 cts. Cocoanuts, per dozen, 75 cts. Green walnuts, per hundred, \$1 to \$1.50.

REMARKS.—The market is well supplied with common vegetables, which are sold at moderate prices. Potatoes are plenty, and are gradually falling in price. Beets, turnips, carrots, cabbages, beans, cucumbers, lettuces, corn, and squashes, are abundant, and of good quality. Melongenas, celery, peppers, tomatoes, parsnips and sweet potatoes, are just coming in, and bring rather high prices. Peas are gone; those

quoted were sold three weeks ago. Fruit is not very plenty, except apples and pears, of which there are an abundance. Cherries are gone; those quoted were sold about the first of the month. Melons are not very abundant, and not of first rate quality; the same is also the case with peaches.—*Yours, J. H., New York, August 22, 1837.*

## ART. VII. Faneuil Hall Market.

		From	To			From	To
<i>Roots, Tubers, &amp;c.</i>		\$ cts.	\$ cts.	<i>Fruits.</i>		\$ cts.	\$ cts.
Potatoes, new :				Apples, dessert :			
Common, { per barrel, . . .	1	25	2 50	Common, { per barrel, . . .	1	50	2 00
{ per bushel, . . .		45	55	{ per bushel, . . .		75	1 50
Chenangoes, { per barrel, . .	1	87½	1 75	Connecticut sweets,			
{ per bushel, . . .		50	62½	per barrel, . . . . .	2	50	3 00
Sweet, { per peck, . . . . .		62½		per bushel, . . . . .	1	00	1 25
Turnips, new, { per bunch, . .		4	6	Sopsavines, { per barrel, . .	8	00	3 50
{ per bushel, . .		75	1 00	{ per bushel, . .	1	00	1 50
Onions, new :				Pears:			
red, { per bunch, . . . . .		4	6	Catherine, per peck, . . . .		50	
white, { per bushel, . . . .	1	25	1 50	Jargonelle, per peck, . . . .		75	
Beets, new, per bunch, . . . .		6		Bartlett, per dozen, . . . . .		25	
Carrots, per bunch, . . . . .		6		Plums, per quart:			
Horseradish, per pound, . . . .		12		Damsons, . . . . .	20		25
Shallots, per pound, . . . . .		20		Green gage, . . . . .	37½		
Garlic, per pound, . . . . .		14		Large black, . . . . .	25		
<i>Cabbages, Salads, &amp;c.</i>				Peaches, per dozen, . . . . .	25		37½
Cabbages :				Apricots, per dozen, . . . . .	25		
Early, each, . . . . .	3	6		Watermelons, each, . . . . .	12½		25
Savoy, . . . . .	3	6		Muskmelons, each, . . . . .	20		37½
Cauliflowers, each, . . . . .	12½	25		Blackberries, per quart, . . .	17		
Lettuce, per head, . . . . .	3	4		Whortleberries, per quart, . .	10		12½
Rhubarb, per pound, . . . . .	3	4		Currants, per quart:	8		10
Pens, { per bushel, . . . . .	1	00		Black, per bushel, . . . . .	3 00		4 00
{ per peck, . . . . .		25		Pine-apples, each, . . . . .	12½		25
Beans, shelled, per quart:				Grapes, (hot-house) per pound:			
Cranberry, . . . . .	12½			Black Hamburg, . . . . .	75		
Common, . . . . .	10	12		White Chasselas, . . . . .	50		
Green corn, per dozen:				Green (wild) per bushel, . . .	1 00		
Common, . . . . .	10	12½		Cucumbers, per dozen, . . . .	6		
Sweet, . . . . .	12½			Cranberries, per quart, . . . .	8		10
Celery, per root, . . . . .	8	12½		Oranges, { per box, . . . . .	2 50		3 00
Peppers, per pound, . . . . .	8	4		{ per dozen, . . . . .	25		50
Cucumbers for pickling, hund'	12½	20		Lemons, { per box, . . . . .	2 00		2 50
Tomatoes, per dozen, . . . . .	12½			{ per dozen, . . . . .	25		37½
<i>Squashes and Pumpkins.</i>				Cocoanuts, each, . . . . .	6		8
Summer Squashes, per dozen:				Shaddocks, each, . . . . .	25		
Bush, . . . . .	10	12		Walnuts, { per barrel, . . . .	4 00		4 50
Crookneck, . . . . .	10	12		{ per bushel, . . . . .	2 25		2 50
Winter crookneck, per pound, .	4	6		Almonds, (sweet,) per pound, .	12		14
Pumpkins, each, . . . . .	12½	20		Filberts, per pound, . . . . .	4		6
				Castana, . . . . .	3		6

REMARKS.—The weather has been favorable since our last, although the ground is dry, and rain much needed: the late cloudy weather has



been beneficial; had it not occurred, the soil would have been almost parched up: it served to prevent evaporation. The consequence has been an abundance of vegetables for the supply of the market. Potatoes are good, plentiful, and prices moderate; late crops in high situations will suffer, but those which were planted early have set finely; sweet ones have been received the past week; they are yet small. Turnips are plenty, but not very fair. Onions abundant and good. No radishes in market. Cabbages are very good and plentiful. Cauliflowers have come to hand with loose heads, since our last, probably owing to dry weather just as they were perfecting their bloom. But very little lettuce to be had. Rhubarb comes in in small quantities, there being but a limited demand. Shelled beans of the cranberry and early kinds are plentiful, but no Limas or sievas have yet made their appearance. Some very good celery has been received. Of corn the first sweet came to hand this week; the early sorts have been tolerably plenty. Tomatoes are now received in quantities, and the prices moderate. Cucumbers for pickling abundant; vines of all kinds have grown finely this year. Winter crookneck squashes have come to hand well ripened.

Apples are exceedingly plentiful and the quality excellent. Sopsavines, as they are termed, are brought in in very large quantities. Pears are also very abundant; since our last there have been a number of varieties in the market, but those mentioned in our quotations are about all to be found this week; the Bartletts were inferior, being mere windfalls. Plums are received in quantities; the green gages are very handsome; the early black and Damsons have been mostly received from New York. Peaches have been received from New York, but in small quantities. Apricots have been quite plentiful this year. Some currants come to hand occasionally. Whortleberries are very scarce, and prices high. Sales of grapes continue dull, although prices have fallen since our last. Cucumbers good and abundant. Muskmelons have come to hand this week. Pine apples are scarce, especially those of good quality; there have been no arrivals of late. A few new cranberries have been received, but not in sufficient quantity to quote by the bushel. Lemons not much in demand. Of old walnuts there are but few in the market. Sales of all productions are dull, though there is evidently an improvement within the past month.—*Yours, M. T., Boston, Aug. 22, 1837.*

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## HORTICULTURAL MEMORANDA

FOR SEPTEMBER.

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### FRUIT DEPARTMENT.

*Grape vines*, in the green-house or grapery, will now have principally ripened their fruit; the house should be kept well aired, and all superfluous wood cut out, in order that the wood may be well ripened.

*Fruit trees* may be transplanted the latter part of the month with safety. Some kinds may yet be budded.

*Strawberry beds* may yet be made, and the plants will do well next season. Plants for forcing should be potted immediately.

*Raspberry vines* may be transplanted toward the latter part of the month.

*Currant and gooseberry bushes* may be also set out with good success.

#### FLOWER DEPARTMENT.

*Dahlias* will require watering if the weather continues dry; mulching at the roots, with old coarse manure, as recommended in our last, will have a good effect upon the blooms.

*Roses* may yet be budded: repot plants for the green-house or parlor.

*Pinks* may still be increased by pipings.

*Chinese primroses* should be repotted this month.

*Cactuses* of all kinds may be propagated successfully this month: repot old plants needing it at this time.

*Hydrangeas* may still be propagated.

*Annuals*, such as schizanthuses, &c., sown last month, should be repotted off into small pots, one in each. Now is a good time to sow hardy annuals, to be kept in frames during winter, to flower early in the spring.

*Lilies*, of various kinds, should be immediately taken up and reset.

*Verbena chamædrifolia*: plants intended for keeping through the winter should now be potted, in very light soil.

*Oxalises*: the winter flowering species should now be potted.

*Guernsey lilies* should now be repotted.

*Fuchsia cuttings* may now be put in with success.

*Camellias* should be syringed frequently: those plants with great quantities of buds will produce finer flowers if part of them are taken off.

*Perennial flowering plants* may be separated and transplanted with success.

*Bulbs* of many kinds may be set out the latter part of the month.

*Pæonies* may now be removed with safety.

*Green-house and parlor plants* of all kinds should be repotted early this month, in order that they may get well rooted before cold weather. *Roses*, &c. which are now in the ground, if wanted for the green-house, should be immediately repotted. Plants for forcing should be potted.

#### VEGETABLE DEPARTMENT.

*Winter spinach* should be immediately sown.

*Lettuces* should be planted immediately.

*Cauliflowers*, for spring use, should be set out in frames.

*Celery plants* should be well earthed up.

*Cucumber seeds*, to produce fruit at Christmas, should now be planted on a light hot-bed.

# THE MAGAZINE

OF

## HORTICULTURE.

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OCTOBER, 1837.

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### ORIGINAL COMMUNICATIONS.

ART. I. *Ringling Fruit Trees; with a notice of some Results following its application to the Pear Tree, discovered by M. Van Mons, of Brussels.* By A. J. DOWNING, Botanic Garden and Nurseries, Newburgh, N. Y.

RINGING (*incision annulaire*, of the French,) is a well known operation, occasionally performed upon fruit trees, both with a view of inducing fruitfulness, and of hastening the maturation of fruits. The practice is one of very ancient origin, but was revived among the moderns by Du Hamel, who published the result of his very successful experiments in the *Memoire de l'Academie des Sciences*, for 1778. Since that period it has been in a considerable degree resorted to in England, to force the production of blossom buds on sterile fruit trees, and to hasten the period of ripening of fruit already formed, as well as to increase its size. When practised for the former purpose, the operation must be performed in the spring; but when it is intended that the effect shall be produced upon the fruit of the current year's growth, the incision should be made when the branch is in flower.

Ringling is easily performed at the proper season, when the vegetable juices are in full flow, by passing a knife completely around the branch twice, and taking out a complete circle of outer and inner bark, not, however, larger (from a half to three quarters of an inch,) than the tree can easily replace in two or three years, as otherwise it would lead to the premature death of the branch. Although much practised by amateurs, ringling has scarcely proceeded upon any certain rules until of late, and we have recently been highly pleased to learn, by the *Annals* of the Paris Horticultural Society, that the eminent pomologist of

Brussels, Professor Van Mons, has turned his attention to this subject, and, as usual, has added very considerably to our stock of information respecting its effects.

Professor Van Mons has confined his experiments chiefly to the pear, and announces that he has discovered two new consequences attending the application of ringing upon this tree, the chief of which is the great stimulus given to the growth of the branch operated upon, accelerating its development, both in length and circumference, as well as a more rapid subdivision of branches.

M. Van Mons, in selecting branches for ringing, gives the preference to those situated upon middle-sized pyramid or *quenouille* formed trees, and, also, to such as are at least equal in size to those surrounding them. The incision is made upon a branch about two inches in diameter, in order that it may be furnished with the greater number of buds. The year following, when the wound has partially healed, the branch will be found to have acquired double the size of its neighbors, the next year triple, the succeeding one quadruple—and so on in succession, until the branch operated upon, by its greater rapidity of growth, eventually takes the place of the stem, when the influence of the operation gradually ceases. The fourth season the cicatrice is so complete, that the wound is only to be distinguished by a few wrinkles. It is necessary, in order that the branch operated upon may experience this superior acceleration of growth, that it should be one of the principal shoots which has a direction nearly perpendicular, or but little oblique. Those which have an upright growth, parallel to the main stem, have of course an advantage over the oblique ones. Ringing does not appear to produce any acceleration of growth in the vegetation of horizontal shoots, the vigor remaining the same in the untouched branches as in that operated upon. This latter lengthens slowly, with but little extension of branches, but all of its lateral buds come into a fruiting state. The wound is longer in healing in the horizontal branches, and the crops are as liable to fail as upon the other branches; whilst upon the perpendicular branches operated upon, M. Van Mons has never witnessed a complete failure of fruit, even in the worst and most unfavorable seasons.

At the fourth, or, at the latest, the fifth year, the branches upon which the incision has been made, and which have been subject to the artificial acceleration of growth, resume again that state of natural luxuriance common to the rest of the tree, while they are not more liable to blight or disease than the other branches. At the same time when the branches operated upon return to a natural state, those which are below the incision come into bearing; but the fruit produced by the latter is yet small, harsh,

and greatly inferior,—two years after it will probably equal in quality that borne by the branches subjected to the incision.

The second effect which M. Van Mons found to follow from the process of ringing the pear tree, and which he considers not the less valuable from the number of applications which may be made of it, is the power which it has of preserving the vitality and vigor of the branches operated upon, when, from any sudden disease, as the blight, &c., the tree is liable to perish. M. Van Mons has witnessed a number of illustrations of this interesting fact in one of his own gardens, where the soil, of only about a foot in depth, rests upon a stratum of ochreous, gravelly sand, which has never been moved. The roots of the trees no sooner penetrate this layer of sand, than the extremities of the branches are attacked by blight; but the branches on which ringing has been practised entirely escape, as if this operation had established a direct relation between them and those roots *not* in contact with the layer of sand.

M. Van Mons, from his experiments in ringing different species of fruit trees, has been led to the conclusion that it is calculated to be of much more benefit to the pear than any other fruit. On stone fruits, as the peach, &c., the wound caused by the necessary removal of the bark, gives rise to an exudation of gum, and the branch, in consequence, after, dies. From the comparative facility, and abundance, too, with which these trees produce flower-buds and fruit, the effects which result from annular incision are scarcely desirable. On the apple it appears to cause the production of a great number of shoots between the wound and the trunk of the tree, without scarcely at all increasing the fruitfulness of the branch.

The full effect of this operation, M. Van Mons believes, can only be experienced by grafted varieties, or trees reared from stocks which have already borne fruit. It appears to have but little or no effect in forcing seedlings into a bearing state, before the period of fruitfulness fixed by nature. Recent experiments have also proved, that the annular incision, practised upon large roots, influences the tree much more uniformly, and its effects are much more durable, than when performed upon the branches.

A. J. D.

We commend the above article, by our correspondent, to the attention of our readers. The operation of ringing fruit trees is but little performed in this country, and the principle upon which it is practised not generally understood. It may be, however, very beneficially made use of to bring into a fruiting state trees, particularly pears, which ordinarily would not for a very long period produce fruit, without this operation was performed either upon the roots or the branches. The French amateurs and gardeners, who are *au fait* in every thing connected with the subject, practice the ringing of their fruit trees to a great extent.—*Cond.*

ART. II. *On Forcing Asparagus.* By E. SAYERS.

ASPARAGUS is a hardy esculent vegetable, a native of Britain, and is particularly adapted to this country, not only for its excellent qualities, as an early esculent vegetable, grown in the natural soil, in the spring, but also for its being particularly adapted for forcing, in frames, pits, or indeed in boxes, or almost any place, or situation, where heat and moisture can be sufficiently applied to cause it to vegetate; and in every case a produce will be obtained sufficient to recompense those, who force it, by a pretty general crop, if well managed.

Before I proceed to the management of the forcing of asparagus, I shall point out the method of growing the roots to be operated upon in a strong vigorous manner, which is one great principle in forcing asparagus, as I do not know of any vegetable that is more susceptible of improvement in cultivation, or one that can be grown in a higher state of luxuriance. The asparagus, in its natural growth and state, is merely a fine grass, springing up in the meadows of Britain; and it might easily be brought to that state of poverty, even in this country, by giving it a poor soil and similar location; and, on the contrary, when the roots (which are fasticulate, and of a nature to easily imbibe any nutriment present in the soil,) are located in a rich soil, the plant naturally becomes of a vigorous, succulent nature, and hence may be inferred the many different names given to the asparagus—as the *Giant*, large Dutch, &c—which I candidly believe are merely varieties, formed by luxuriance extracted, in the first case, from the soil in which they are planted, and hence their first origin.

The method which I recommend to be pursued for forcing asparagus, is, to grow the roots intended to be forced, from seed sown on a very rich piece of ground, in the middle of October, in rows, eighteen inches apart; the seed bed must be kept well hoed and in excellent order, in the growing season: when the plants have grown an inch or two in height, they will require to be thinned to about six inches apart in the rows, that they may have free access to the *sun* and *air*, to obtain a healthy vigorous state. The second year, in the early part of April, prepare a nursery bed of rich ground, in the best possible manner, into which plant the seedlings, in rows, eighteen inches apart between the rows, and twelve inches apart from plant to plant; the planting should not be performed by a dibble, but draw a furrow with a hoe, into which spread the fasticulate roots, in a regular manner. The plants should remain in this place two years, keeping the bed at all times extremely clean, and never cut down the stalks until they are fully ripe.\*

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\* The only method to obtain good asparagus in any stage of its growth

*Practice of Forcing.*—The asparagus may be forced at any time after the stalks are dead, as from that time the roots are in a dormant state, and are only waiting for a congenial temperature and season to start their vegetative powers. In preparing the hot-bed, those materials that will give a moderate and continual heat are the best; oak leaves and good horse manure, mixed together, and worked into a state of fermentation, I should prefer: make a moderate hot-bed of these materials, when well worked into a proper state, by turning and thoroughly mixing together, at different times. When the bed is made place the frame upon it; it may then be well watered, and the frame closed a day or two, to draw up a moist genial heat; about six inches of a light, rich, mellow soil, as leaf mould, or something similar, may then be spread upon it, and the frame again closed, to draw the heat through the soil; this being accomplished, and the bed having a proper temperature, ranging from 45° to 50°, the asparagus roots are to be placed thick over it, and lightly covered with light soil, old tan, or the like, about six inches deep. Great care must be taken, at this period of the operation, that too much heat is not applied to the roots, to start vegetation in too rapid a manner, (one of the greatest and most common errors in forcing asparagus;) therefore give plenty of air during the day, and at night, if there is any danger of its being too violent. If forcing is carried on in severe weather, the bed will require covering with bast mats or hay during the night.

Yours,

E. SAYERS.

Boston, Sept. 14, 1837.

[To be continued.]

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ART. III. *Observations on the Treatment of several Genera of the Natural order Iridaceæ.* By the CONDUCTOR.

IN our vol. II, p. 408, under this head, we proposed to give the cultivation and treatment of several genera of this beautiful

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is to place the roots into a rich mellow soil; for they, being of a fasticulate nature, often lose much of their strength and vigor when the soil is dry and poor; and indeed part of them often perish before their proper time, and hence the crown and buds cannot be properly fed. On the other hand, the leaves and stalks of the asparagus are very porous, and convey much nutriment from the atmosphere to the roots, and hence the utility of their having free access to it.—E. S.

order. In the paper alluded to the mode of managing the *Gladiolus*, *Iris*, *Sparaxis*, and *Anomathëca*, was treated at length; we now add those other genera which we then named, viz. *Watsonia*, *Babiàna*, *Antholyza*, *Tritònia*, and *Hesperántha*. Neither of the latter are so universally admired or generally cultivated genera as the former; but they are, however, of considerable interest, and some of the individuals belonging to each genus are quite beautiful.

The cultivation of the plants of this order is yet very limited, and, with the exception of *Gladiolus* and *Ixia*, few collections possess any—or, if any, not but one or two—of the others. *Sparaxis* is not much known, *Anomathëca* less, and *Babiàna* and *Hesperántha* are hardly to be found at all. The whole stock in the vicinity of Boston has, we believe, in the first instance, been received from the Cape of Good Hope, by the liberality of the Baron von Ludwig, who sent bulbs to the Horticultural Society, from whence they were distributed among the members. Many of the bulbs have been lost, from mismanagement, and but a part of the various species now remain.

*Watsonia*.—A genus numbering upwards of a dozen species, some of which are in our collections, under the name of *Gladiolus*; they are, however, easily distinguished from the latter, by their peculiar flat bulbs. The handsomest of the genus are the following:—

*W. rosea*.—This species grows about two feet high, quite robust, with pyramidal spikes of rosy pink flowers, and is very ornamental.

*W. iridifolia*.—Another strong growing one, the most robust of the whole. The flowers are flesh colored, and the spikes attain the height of three feet.

*W. aletroides*.—This species grows about a foot and a half high, and has scarlet flowers; there is also a variegated variety, equally handsome.

*W. fulgida*.—A species growing upwards of four feet high, with fine spikes of bright red or scarlet flowers.

*W. spicata* and *Meriàna* are also very ornamental species, the former with pink and the latter with flesh colored blossoms.

These are the species more generally cultivated, though the others possess considerable beauty. They are all grown in a similar soil to that recommended for *Gladiolus*, viz. peat and loam. The bulbs should be potted at this season of the year, one bulb of the weaker growing species in each number two pot, and one of the strongest bulbs into a number four pot. Give the pots a good draining with broken potsherds, and, after the bulbs are planted, place them in a frame, or under the stage in the green-house, until the approach of severe weather; as soon as the shoots appear above the soil the plants should be allowed



to receive the benefit of all the light possible, and be duly and regularly watered, and supplied with air. When the bulbs have done flowering, water should be gradually withheld until the foliage has become nearly dried up, when it may be left off altogether; the bulbs may stand in the pots, in a dry place, until the season for repotting again. The treatment is so similar to *Gladiolus*, that a reference to that genus will prevent a repetition of the particulars of cultivation.

*Babiana*.—About eighteen species of the genus, some of which are interesting, and some scarcely worth cultivation. The following are some which we have cultivated, and which are quite ornamental.

*B. plicata*.—With spikes of blue flowers, growing about six inches high, and very handsome. The flowers have a slight fragrance.

*B. stricta*.—This species has blue and white flowers, and grows taller than the *B. plicata*, about a foot. It is a pretty species.

*B. Thunbergi*, *ringens*, *distica* and *rubro-cyanea* are each said to be quite beautiful bulbs; the latter has not yet flowered with us. The blue flowers of the species contrast prettily with the yellow and white blossoms of the *ixias*, the saffron tints of the *tritonias*, and the yellow and red shades of the *sparaxis*.

The management of *babianas* is very simple and easy. The bulbs should be planted early in October, in sandy peat and loam, planting three good sized bulbs in a number two pot. After they are set out they should be removed to a frame, or some other cool, partially shaded aspect, where they may remain until the approach of cold weather: remove them then to the green-house or parlor, where they will advance in growth and produce their pretty blossoms. When out of flower treat them the same as has been directed for *ixias*, *sparaxis*, and similar bulbs.

*Antholyza*.—A very small genus, numbering only three species. They are showy in a collection of other plants, from their tall and erect growth and bright scarlet blossoms; but individually they possess very little merit. The species are as follows:—

*A. prealta*.—A very tall species, growing upwards of four feet high; the flowers are orange colored, small, and produced in spikes. The bulbs are very large and quite flat.

*A. æthiopica*.—Less robust in its habit than the former, with spikes of scarlet and green flowers; it grows about two and a half or three feet high, and has a handsome appearance when in bloom.

*A. montana*.—This species we possess, but it has not yet flowered; the bulb is now about commencing to start again, and it will probably bloom the coming season. It is said to be fragrant.

The antholyzas require a sandy peat soil, and the bulbs should not be crowded into a small sized pot, but should have plenty of room, if the object is good flowers. A number four pot is full small enough for a fine sized flowering bulb: the offsets can be placed in a smaller pot, several in each. Pot in October, and place in a shady situation until the latter part of the month, when they will need removing into the green-house. They produce their flowers in January and February, and a few pots, mixed in with other plants in the green-house, have a fine effect, towering up, and, with their scarlet blossoms, adding a brilliancy to the other plants. After they have done blooming turn the pots out of doors, (unless cold,) upon their sides, and they will need no water or other care all the summer. We flowered the præalta in great beauty last year, and the bulbs have already made new shoots four inches long, without repotting.

*Tritonia*.—Upwards of twenty species, but only one of which we have ever cultivated, or seen in flower elsewhere. For the most part they possess but little beauty, and are not sought after.

*T. crocata*.—Known in our gardens as the *Ixia crocata*, and quite common; it is a very splendid plant, and no collection should be without it: it flowers in the months of March and April, and its large saffron colored flowers, on rather slender stems, have a beautiful appearance, from their procumbent habit.

*T. zanthospila*.—This species has white flowers with yellow spots, and is said to be handsome, though we have never seen it.

The species are cultivated in sandy peat and loam, putting two or three bulbs in a number two pot, and about four bulbs in a number three pot; keep them in a shady cool place for a short time after they are potted, which should be early in October, afterwards removing them to the green-house; when in flower give them liberal supplies of water, which should gradually be withheld as the foliage assumes a yellow and decaying tinge. Set the pots away, in the summer, in a dry place, where the bulbs may remain until the season of planting, in October.

*Hesperantha*.—A genus with which we are less acquainted than either of the others; we received several bulbs, as species of this genus, but they have all, we believe, proved to be *ixias* or *tritonias*. When we named this genus, in our previous paper, we thought that we then possessed two or three species. The bulbs require nearly the same treatment as the *ixias*; they should be planted in October, in sandy peat and loam, and treated precisely the same as *ixias*.

ART. IV. *Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some Account of those which it would be desirable to introduce into our Gardens.*

*Edwards's Botanical Register*, or Ornamental Flower Garden and Shrubbery. Each number containing eight figures of Plants and Shrubs. In monthly numbers; 4s. colored, 3s. plain. Edited by John Lindley, Ph. D., F. R. S., L. S., and G. S. Professor of Botany in the University of London.

*Curtis's Botanical Magazine*, or Flower Garden Displayed, containing eight plates. In monthly numbers; 3s. 6d. colored, 3s. plain. Edited by Sir W. J. Hooker, L.L. D., F. R. A., and L. S., Regius Professor of Botany in the University of Glasgow.

*Paxton's Magazine of Botany*, and Register of Flowering Plants. Each number containing four colored plates. In monthly numbers; 2s. 6d. each.

*The Horticultural Journal*, *Florist's Register*, and *Royal Ladies' Magazine*. Dedicated to the Queen, Patroness, the Rt. Hon. the Earl of Errol, President, and the Vice Presidents of the Metropolitan Society of Florists and Amateurs. In monthly 8vo numbers, with a plate; 1s. each.

DICOTYLEDONOUS, POLYPETALOUS, PLANTS.

*Ranunculaceæ.*

DELPHINIUM

*intermedium* var. *pallidum* Lindl. Pale blue *Variable* Larkspur. A hardy perennial herbaceous plant; growing six or seven feet high; with pale blue flowers; appearing in July and August; cultivated in rich soil. Bot. Mag., 1969.

"A lovely variety" of the *D. intermedium*, noticed in our last. It grows very strong, attaining the height of seven feet and upwards, in a rich soil; the stems are terminated with branched racemes of nodding sky-blue flowers, which give the plant a most graceful appearance. The leaves are thin, and perfectly destitute of the smallest trace of hairiness. The drawing was made from the Horticultural Society's garden. (*Bot. Reg.*, July.)

*Ternströmiaceæ.*

CAMELLIA

*japonica* var. *tricolor* Hort. Three-colored Camellia. A green-house plant; growing six or eight feet high; with white and red flowers; appearing in February and March; Hort. Jour., Vol. VII, p. 61.

A splendid variety of this elegant tribe: the flowers are not very double, but are well formed and beautifully shaded, striped, and spotted with light and dark red; it is quite different from

the double striped, or *Chandléri*: the foliage is small. We do not learn where it originated, but we believe that the original plant was imported from China. Mr. Low of Clapton has flowered it, and plants have been imported to this country from France. It will be a fine addition to our gardens. (*Hort. Jour.*, June.)

Mr. Press, the celebrated raiser of the three splendid varieties of the camellia, viz. *Invincible*, *Eclipse*, and *Rosa mundi*, has produced another of great merit, from the seed of the double striped; it is very double, thick petalled, excellent form, and a stripe down the centre of each petal.

### *Rosaceæ.*

#### POTENTILLA

*glandulosa* var. *incisa* Lindl. Cut-leaved glandular Potentilla. A hardy perennial herbaceous plant; growing two feet high; with ye low flowers; appearing in June; a native of California. *Bot. Reg.*, 1873.

Of no interest whatever to the floriculturist, being a weedy plant, like its parent and many others of the species, with insignificant blossoms. To botanists, however, it is interesting, as it shows the extent to which the species vary permanently in their wild state. "That the plant is a mere variety of *glandulosa*" Dr. Lindley does not doubt; "yet the wild specimens have the petals longer than the calyx, the stem weaker and less glandular, and the leaflets not only deeply cut, as well as serrated, but strikingly cuneate at the base, and pointed at the end, instead of having a roundish oblong figure." Flowered in the garden of the London Horticultural Society, last season. (*Bot. Reg.*, June.)

### *Fabaceæ* or *Leguminosæ.*

#### PSORALEA

*orbicularis* Lindl. Round-leaved Psoralea. A hardy perennial herbaceous plant; growing about a foot high; with purplish-red blossoms; appearing in June and July; a native of California; increased by seeds and division of the root. *Bot. Reg.*, 1871.

A pretty plant, with capitate, conical heads, of purplish-red flowers, which appear upon stalks about a foot long; the plant has a creeping habit. It is a pretty and desirable species, and, if hardy in our climate, would be an excellent addition to our collections. It is a native of California, from whence the seeds were sent to the London Horticultural Society, by Mr. Douglas. (*Bot. Reg.*, July.)

#### SPARTIUM (*Sparton*, cordage; its use in early ages.)

*acutifolium* Lindl. Sharp-leaved Spanish Broom. A hardy (?) shrub; growing six or eight feet high; with yellow flowers; appearing in July (?); a native of Turkey; increased from seeds. *Bot. Reg.*, 1874.

Very similar to the Spanish broom, of which it may possibly be a variety, although it appears to be a distinct species. The habit of the plant is graceful, and all the branches are terminated with numerous yellow flowers of good size, which are slightly fragrant. If it should be introduced to our gardens, and prove hardy in our climate, it will be a valuable shrub. The seeds

were received from Turkey, by the Horticultural Society, in whose garden it flowered. (*Bot. Reg.*, July.)

### *Begoniaceæ.*

#### BEGONIA

*odorata* Sweet-scented Begonia. A stove plant; growing about two feet high; with white flowers; appearing in April and May; increased by cuttings; cultivated in light rich soil; a native of the West Indies. *Pax. Mag. Bot.*, Vol. IV, p. 123.

A pretty plant, with numerous clusters of small white, fragrant blossoms: the plant grows about two feet high. It is a new species, and the specimen from which the drawing was taken was furnished by Messrs. Young of Epsom. Its native country is supposed to be the West Indies. It grows freely in very light rich soil. Its fragrance renders it a desirable species. (*Pax. Mag. Bot.*, July.)

### DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

#### *Ericaceæ.*

#### RHODODENDRON

*var. Seymourii* Lindl. A hardy shrub; growing four or five feet high; with pale yellow flowers; appearing in April; a hybrid plant; increased by inarching and grafting. *Bot. Reg.*, 1875.

A pretty hybrid, obtained, by the Hon. and Rev. Wm. Herbert, from the seed of *Rhododendron Rhodora* (*Rhodora canadensis*), impregnated with *R. luteum* (*Azalea pontica*.) Mr. Herbert states that "its leaves are produced early in the spring, and last year they were much damaged by a severe frost in April." It pushed afresh, afterwards, vigorously, and formed two flower buds. On the approach of spring, to avoid any danger of damage, the plant was potted and placed in the greenhouse. The leaves pushed before the buds began to move, and completely clothed the plant before their expansion, contrary to the habit of *Rhodora*. The number of stamens is irregular. Mr. Herbert states that he has had a genuine umbel of *R. luteum* (*Azalea pontica*), of which two flowers had seven, and two, six, stamens, showing clearly that the deficiency of the five stamens of inferior power in the azaleas is not a generic distinction, but an imperfection. The plant does not possess any great beauty, but is interesting from the relation of the two parents, which have heretofore been considered as belonging to distinct genera. The flowers are small, in a rather dense umbel, and of a very pale yellow tint. Mr. Herbert has other plants raised from the same parents. (*Bot. Reg.*, July.)

*arborescens* var. *cinnamomeum* Lindl. Cinnamon-colored tree Rhododendron. A greenhouse evergreen shrub; growing ten or fifteen feet high; with white flowers; appearing in April; a native of the East Indies. *Bot. Reg.*, 1882.

Another truly magnificent and charming variety of the *R. arborescens*, very similar in general appearance to the variety *album*, figured in the *Botanical Register*, 1684, and *Botanical Magazine*, 3290. "But it appears to differ, in having the clusters

more compact, the purple spots on the corolla larger, darker, and more numerous, the white less clear, and the leaves covered on the under side with a clear, bright, cinnamon colored fur." The white variety referred to has never been noticed in our Magazine, but it may be described as very similar to its parent, the *R. arboreum*, except in the color of the blossoms, and a less compact cluster. It is a valuable addition to this gorgeous family, and though yet quite rare, will undoubtedly soon become generally cultivated. It was raised from seeds received from Dr. Wallich, through the directors of the East India Company, in 1822; but none of the plants then raised appear to have flowered before the one from which the specimen was cut from which the present drawing was taken. This opened in the nursery of the Messrs. Rollisons of Tooting, in April last.

It has been supposed that this was the *R. campanulatum*, which Dr. Wallich intended by the name of *R. cinnamomeum*, and that the former name was given by Mr. Herbert, and adopted by Mr. Don, to the same plant as the latter. But Dr. Wallich does not seem to be of this opinion, as the subject was noticed in the number 760 of his *Indian Herbarium*, while the *R. campanulatum* is included in the same collection as number 756. (*Bot. Reg.*, August.)

The varieties of this admired tribe of plants have been greatly increased within a few years by the production of numerous seedlings, both with the English and Continental amateur and nursery gardeners. Hybrids have been obtained between the *R. arboreum* and our native species, the *R. catawbiense*, of great elegance: the great *desideratum* yet, is, to procure hardy plants possessing the splendor of the Indian species and varieties; this will, we have no doubt, be ultimately done: Mr. Brown, gardener to Lord Aylesbury, has raised a beautiful variety between the *arboreum* and *máximum*, which is quite hardy in England. A variety or species called *R. multimaculatum*, has flowered, the past spring, in the nursery of the Messrs. Young of Epsom, which they received from the Continent; it has a white ground, with brown spots, and is said to be fine. M. Soularge Bodin of Fromont, near Paris, has a large catalogue of varieties raised in his extensive nursery, and many of which have been imported into our gardens.

We remarked, in our notice of the nursery of Thomas Landreth, (p. 212,) that our cultivators do not understand the management of the *R. arboreum*, as it is rare to see specimens in a vigorous and healthy state. We are now more assured that we were right in our supposition, as will be seen from the following remarks, which we quote from Paxton's *Magazine of Botany* for July, where he states that a plant was then in bloom at Chatsworth, with upwards of two hundred! bunches upon it. Mr. Paxton

states that it is "but rarely if ever seen in any thing like the perfection of the present object. Most cultivators under-pot it, which is a mistaken notion; indeed, it is quite natural to suppose that a plant, which attains the size of an ordinary forest tree, should require plenty of pot room before flowers can be produced of a natural and luxuriant size.

"The soil should be varied, according to the size of the plants. Seedling plants grow best if potted in very sandy peat; as the plant progresses a little loam should from time to time be added, until the plant is five or six feet high; more loam should be used at each shifting; when the plant attains a large size, equal parts of loam and peat may be used. By strict attention to the above directions, and supplying the plant plentifully with water during the growing season, fine healthy blooming plants will be the result."

These remarks are perfectly just; it has been a too prevalent idea to grow all the species in as small pots as possible, in order to throw them into bloom; true, they will flower, but in no comparison to their native splendor, where the roots are left to gather nourishment, by extending themselves to a great distance. Peat, too, has been almost exclusively used by our cultivators; and this we believe to have been the greatest cause of the poor appearance of the plants. They need a stronger soil when they have acquired size, as peat, or peat soil, soon becomes exhausted, and the plants live upon the water alone which is given them. We would call the attention of the lovers of this splendid tribe to Mr. Paxton's observations.

### *Epacridaceæ.*

#### *EPACRIS*

*variabilis* Variable *Epacris*. A green-house plant; growing three or four feet high; with pink flowers; appearing in February and March; a native of Van Diemen's Land. *Pax. Mag. Bot.*, Vol. IV, p. 125.

A very delicate and beautiful species, somewhat resembling the *E. impræssa*; the flowers are, however, of a paler color, and disposed in longer racemes. During their bloom they change their color, turning from a fine deep pink to a pale blush. It is cultivated like the *E. grandiflora*, and, like that species, is deserving a place in every choice collection of plants. (*Pax. Mag. Bot.*, July.)

### *Schrophulariæ.*

#### *MIMULUS.*

A new variety of *mimulus* has been raised from seed by Messrs. Low of Clapton; it is a hybrid between the *M. cardinalis* and *M. luteus* var. *variegatus*; the plant possesses all the habit of *M. cardinalis*, while the flowers are like those of *M. luteus* var. *variegatus*, only of a deeper color. We have no doubt but the introduction of the *cardinalis* will bring about a complete

revolution in the varieties. By hybridization between it and the dwarf and yellow species and varieties, its vigorous and robust constitution, as well as the brilliancy of the corolla of the *M. cardinalis*, will be imparted to the progeny. It is certainly, in our opinion, the finest species of the genus. All the lately introduced species and varieties are deserving of general cultivation: they are valuable for the green-house or parlor, flowering excellently and abundantly for a long time.

*Antirrhinum caryophylloides*.—A new species under this name has been flowering at Mr. Knight's, of the King's Road, Chelsea, which is stated, in Paxton's *Magazine of Botany*, to be the finest and most beautiful species, without exception, yet known in England; when in flower it possesses all the beauty of a fine carnation, from whence its specific name. It flowers well in the green-house or in the open border.

*Verbena Drummóndi* is said to be a fine companion to the *chamædrifolia*; it has pink blossoms, deliciously fragrant, and the contrast between two beds, one of each, is extremely elegant.

### Orchidaceæ.

#### PLEUROTHALLIS

*saurocephala* Lodd. Bot. Cab. Lizard-headed Pleurothallis. A stove epiphyte; growing about a foot high; with green and brown flowers; appearing in September. Bot. Reg., 1968.

A species possessing no great claims upon the lover of epiphytes. The flowers are small, the sepals of a dull green, and the petals and labellum tinged with brown; they appear on short spikes, each plant producing from five to eight. It has been a scarce species around London ever since it was introduced. The specimens from which the drawing was taken were received, together with the description, from Wm. B. Booth, gardener to Sir Charles Lemon, Bart., of Carclew. (*Bot. Reg.*, July.)

#### BOLBOPHYLLUM

*saltatorum* Lindl. Dancing Bolbophyllum. A stove epiphyte; growing a few inches high; with red and brown flowers; appearing in December; a native of Sierra Leone. Bot. Reg., 1970.

This is the species mentioned in the *Register*, t. 1942, and noticed, at page 232, as being the one in the possession of the Messrs. Loddiges, very similar to the *B. barbigerum*. Like that it is extremely curious and splendid, although it is a smaller growing species. The flowers appear on pendulous racemes, not more than three inches long, and are formed very similar to the *B. barbigerum*: the lip possesses the same power of being set in motion by the least breath of air. It should be in every collection of this tribe. It flowered with the Messrs. Loddiges, in December last. (*Bot. Reg.*, July.)

#### EULOPHIA

*macrostachya* Lindl. Long-spiked Eulophia. A stove epiphyte; growing from one to two feet high; with yellow and green flowers; appearing from September to January; a native of Ceylon. Bot. Reg., 1972.



"A handsome species of this extensive genus," a native of Ceylon, from whence it was sent, some years ago, to the London Horticultural Society. It is said to be one of the easiest cultivated plants among the *Orchidaceæ*, producing "its graceful racemes [spikes] of green and yellow flowers abundantly towards the latter part of the year. They go on growing and producing fresh flowers till Christmas." The habit of this species is much more beautiful than many of the orchideous plants, the spikes of flowers being very erect. It is deserving of introduction to our gardens. (*Bot. Reg.*, July.)

*Cattleya labiata*.—This most lovely species, which is noticed in our II, p. 344, is figured in Paxton's *Magazine of Botany* for July. We there learn that it "thrives in an atmosphere less moist than is usually given to the other branches of this family; it succeeds well at Chatsworth, treated in a temperature ranging from 70° to 75° Fahrenheit, carefully watered at the roots, and now and then moderately sprinkled over the top with water. It should be grown in coarse peat, mixed with a good proportion of broken pots, so that the water may pass off freely. It is multiplied by separation of the roots; a portion of the root, with one stem attached, (if two, much the better,) seldom fails of pushing a bud, which, if well managed, soon becomes established and secure."

#### *Liliaceæ.*

*Tulips*.—A splendid new seedling tulip has been raised and broke into color by J. Goldham, Esq., which he has named Gem. It is a *rose*, with a pure white ground, superbly feathered with rose up the centre of each petal. It is figured in the *Horticultural Journal* for July, and we do not recollect of ever seeing a finer one. The price of the bulb is not mentioned.

The Birmingham Grand Tulip Show took place on the 15th of June last. Among some of the flowers which gained prizes in the different classes, we notice the names of several which were flowered in excellent perfection by Mr. Walker, of Roxbury, and which were among many other fine ones in his bed, exhibited in June.

The splendid collection of tulips belonging to the late Wm. Strong, one of the most successful cultivators of this gorgeous flower, is offered for sale, and a catalogue of the kinds published; it embraces all his fine seedlings, some of which surpass any that have ever been produced. To show our readers the high price at which several of the kinds are valued, we append the following list of names, with the prices attached. They were all broke by Mr. Strong:—

Queen . . . . .	£20	Sir Robert Peel (new)	£5
Eliza (new) . . . . .	15	Lady Peel . . . . .	5
Delia . . . . .	10	Surpass Pompe Funébre	5
Ada (new) . . . . .	5	King . . . . .	4

An immense number of Mr. Strong's are valued from £1 to £3. The following, raised by other growers, are offered for sale at the annexed prices:—

Queen Adelaide (Groom's)	£10	Louis XVI (Austin's)	£5
Queen (Rutley's)	10	Lord Collingwood	5
Thalia	10	Pompe Funébre	5
Louis XVI (Brown's)	8	Rose Lac, true,	5

The collection of about 260 roots, one of each, as priced in the published list, amounts to upwards of £300, (about \$1300.) A tolerable sum to gratify the tulip fancy—not, however, by any means, out of the power of many gentlemen to purchase. There is not, in the whole catalogue of florist's flowers, one which makes such an all-surpassing display as the tulip. We hope some of our liberal patrons of gardening will avail themselves of so fine an opportunity to purchase: so rare a chance will not probably occur for a long time.

#### ART. V. *Calls at Gardens and Nurseries.*

*Lynn.*—We have recently made a visit to this village, which contains many very pretty gardens. Perhaps, for the number of its inhabitants, few villages, situated at the same distance from the metropolis, can claim the same amount of taste, which appears to be very generally diffused among all classes of citizens. The plain cottage and the elegant mansion are alike ornamented with parterres of flowers, and to each are appended, in many instances, a small garden containing some good fruits, and a supply of all the most valuable vegetables. The taste for flowers, we are happy to learn, has been encouraged by some of the more wealthy inhabitants, who have not only set good examples, but have, with great and praiseworthy liberality, distributed the more beautiful productions of Flora to those, who, though not by any means unable to purchase them, have, as in too many instances throughout the country, shrunk from possessing such, under an erroneous and prevalent idea that it is a lavish expense, without any adequate return—forgetting that the pleasure, derived from the pursuit of floriculture, as a part of gardening, is of the most noble and innocent nature, and to foster and encourage which, wealth cannot be more generously employed.

The late, and, as yet, depressed state of affairs in this country, has been severely felt by the citizens of this village. Altogether a manufacturing population, the general prostration of business throughout the country has diminished the resources of the inhabitants in a great degree: their means have therefore been suddenly cut off, and less attention to gardening has been given, the past season, than usual; while on the other hand, if the loss of business had not been experienced, the advancement would have been very great, and would have placed this village high in the scale of horticulture. But we look to a reascitation of commercial affairs, and with it a more zealous endeavor to ornament our gardens and pleasure grounds, to make additions to the

fruit gardens, to enter into the cultivation of all excellent vegetables, to the forming of new orchards, and to generally embellish the dwellings of the citizens, of whatever class.

*Garden of O. Johnson, Esq.—Aug. 5th.* We mention this fine place first, not because it is the oldest, but that it stands now, not only at the head of others in the village, but, as respects its high keeping, at the head of all the amateur gardens we ever had the pleasure of visiting. Mr. Johnson is excessively fond of flowers, and has been at great expense to procure fine plants of such kinds as will afford him gratification and delight during the summer season. Residing at the south through the winter season, a green-house or stove would be of little use, and would at present be a source of much expense, and the beauty of the plants would remain unseen. At some future time, we have no doubt, Mr. Johnson will have such an agreeable and indispensable appendage to his garden; at least we certainly hope he will.

The whole grounds are about two acres in extent, situated on Federal Street, but a short distance from the half-way house between Boston and Salem. The mansion is built plain and neat, in the style usually adopted, and is situated in the centre of the grounds, near to the street. On one side is the fruit and flower garden, and on the other the vegetable garden, which communicate together behind the out-buildings. In front of the house is a semi-circle of shrubs and plants, bordered with a hedge of buckthorns, kept very handsomely trimmed. Two large gates, at each end of the semi-circle of shrubs, &c., afford a carriage entrance to the door. There is also another entrance, by a straight walk, from the street, leading directly through the semi-circle of shrubs, &c. The house is somewhat elevated, upon a double banking, and has a very fine appearance. Upon the banking we noticed several vases, some with plants growing in them, and others for mere ornament alone. They added much to the general effect of the grounds.

The fruit and flower garden is situated on the western side of the house, and part of it is laid out in small beds with box edgings. A walk, with a trellis for grapes each side, runs across the garden, separating the flower department from the fruit garden. In the back part of the fruit garden, with a small space of green in the rear, stands the grapery, erected about three years since, and now containing a crop of grapes. A walk runs round the whole garden, and against the west fence are planted several Isabella and Catawba grape vines, which are now bearing fine crops. The flower beds are filled with annuals, roses, geraniums, and other plants, among them some very fine things: *Fuchsia coccinea* and *gracilis*, trained to stakes, were upwards of two feet high, well branched, and covered with a profusion of their beautiful flowers;—they are lovely plants for turning out doors in summer, as we have before stated, (p. 298.) *Rosa macrophylla* was blooming exquisitely, planted out in the border; the plant was full of buds, and some were expanded: the beauty, however, of this species, like the moss roses, consists in its buds, which are covered with short, densely set, soft spines; it is a curious rose, and should be in all collections. It may be well to remark here, that it does not flower well in a pot, seeming to require a vigorous growth, which it scarcely makes when standing in pots, to ensure buds: with us a large plant in a pot has not yet blossomed, while the plant here referred to was young, and quite small, last spring, but by planting it in the ground it has made very strong shoots, which are full of flower buds. We here saw some remarkable large ice plants, measuring in diameter about five feet, which had a pretty appearance in the border. Patches of *Chrysæis crœcea*, *Verbena chamædrifolia*, *Heliotropium peruvianum*, were exceedingly showy, and the latter, with an abundance of mignonette, gave out a delicious fra-

grance, which filled the garden. The heliotrope grows freely in the open ground, and a small plant turned out of a pot into the border, in the spring, will spread over a large spot before the end of the season. It is easily propagated from cuttings. No plant can be more valuable where it is desirable to cut bouquets.

Mr. Johnson's collection of dahlias is excellent; embracing a great variety, and among them many of the finest new ones of this year, such as Widnall's Juliet, Dodds's Mary, Brown's Star, Widnall's Exempler and Enterprise, Zarah, Peerless White, &c. They were planted against the trellis we have before mentioned and the south fence, excepting a few of the newest ones, which were planted in the flower border. They have all flowered finely, and were, at this time, covered with buds and blossoms.

The grapery we have mentioned, which is about forty feet long and ten wide, was planted with vines in the spring of 1835; the plants were then only one year old, and had been grown in pots; they were turned into the border in May, and by the end of the season had reached the top of the house, and had made strong wood, which ripened well. Last year the vines were duly pruned, and some of them produced a few clusters of grapes. The present season the crop is very abundant—almost too much so—but the grapes are coloring well, the clusters of fine size, (some weighing two pounds,) and the wood, which is very strong and vigorous, is ripening finely. Considering that the vines have been under the immediate management of Mr. Johnson, whose time is divided between his business and his garden, and who has had little or no experience in their cultivation, we may safely say that they equal in appearance the crops in the graperies and green-houses of the first gentlemen and amateurs in the immediate vicinity of Boston, where, too, the vines have had the care of experienced and professional gardeners. The vines were entirely free from insects and mildew, and had that healthy appearance, the true indication of judicious treatment. How easily might every gentleman, who has the means to erect a small grapery, supply his table with this delicious fruit, by a very small amount of his own personal care and labor! and how pleasant would be the time employed! It is useless to attempt to raise foreign grapes in the open air in the climate of New England; and if fine fruit is desired, it can be produced only in a house covered with glass. Mr. Johnson's grapery has no flue, but it is his intention to have one built the present winter, so as to have the grapes ripe in August hereafter.

The fruit garden was well filled with an excellent collection of the finest pears, plums, &c., and several varieties of the former were producing fruit, on small trees; we noticed the Colmar, Marie Louise, Napoleon, Buffum, and Bartlett, with handsome specimens; the trees were from Mr. Manning, of Salem, whose valuable collection we have elsewhere spoken of in this Magazine. In the vegetable department every thing denoted good management, and among the products we observed a fine bed of carrots, which Mr. Johnson was raising for his cattle. Several old apple trees, which were part of an orchard when he purchased the place, and which then produced scarcely any fruit, he has so renovated that they were now almost breaking down with their load of fruit. Such management is deserving of the highest commendation. It is lamentable to see the neglect into which many orchards have been suffered to run, from the depredations of insects and other causes, when a little labor, annually, would have kept the trees in a healthy and fruitful condition. The time will come, sooner or later, when the scarcity of this excellent fruit will open the eyes of our farmers to the subject, and the planting and management of orchards will be one of his most important duties.

*Garden of H. A. Breed, Esq., Elm Street.*—Mr. Breed was the first

person, we believe, in this village, who took a decided interest in gardening. The garden contains about two acres of land, is well situated, and the soil appears to be of a good kind for the general purposes of an amateur. It lies a little sloping to the south, sufficiently so to carry off superfluous water, although the lower part of the ground, where the green-house and grapery now stand, is, in some seasons of the year, rather wet, so much so that the latter has been flooded with water to the depth of a foot or more: the green-house is also subject to damp. Both, we understood Mr. Breed's gardener to say, would be removed, before long, to the highest part of the place, near to the new mansion which was erected last season, and which, as respects its architectural proportion and general beauty, is one of the finest specimens of the style we ever witnessed. The collection of green-house plants is not very large, and this being the season when they are removed to the open air, we saw nothing of interest; a few cacti were all that remained in it. The green-house, last winter, was fitted up with a hot water apparatus, for heating it, without any flue; but it was found extremely difficult to keep up the heat during some of the most severe nights, although the pipes, which are of the usual size, (four inches in diameter,) run completely round the house. We have before stated our opinion upon this point, having been convinced that, in this country, the frost cannot be kept out of a green-house by hot water pipes (on the level system) alone, unless they run round the house more than once. By Perkins's system of small iron tubes it may be done, but by no other. By the construction of a flue, the first cost of which is not great, a saving is made in the quantity of heat given out: by conducting the smoke, &c. immediately from the furnace, much of the heat is carried off with it; but if there is a good flue, and properly constructed, the fire will burn as freely, and all the heat which would in ordinary circumstances be thrown off, is carried round the flue, and, consequently, into the house. Gentlemen erecting green-houses, and consulting English works, should not forget to take into consideration the great difference of climate between the two countries.

In the garden the dahlias were the most showy ornaments; we found the sorts far less rare than at Mr. Johnson's, being only the more common ones, as *Dennisi*, *Countess of Liverpool*, *picta formosissima*, &c. Numerous bulbs of *Gladiolus natalensis* had thrown up three spikes each of its fine flowers. Since our notice of this species, in our 1, p. 30, and the communication of one of our correspondents, it has become generally cultivated; its ready increase has placed it in the possession of all lovers of flowers. Numerous geraniums and roses, plunged into the border, were producing an abundance of bloom.

In the grapery both vines and fruit have mildewed some; but this is, in a great degree, unavoidable; the situation, as we have previously remarked, is very low and damp: a few peach trees on the back trellis were producing a little fruit.

We noticed here a small patch of ground, which had produced a fine lot of the autumnal marrow squash, many of which had attained their full size, and were fit for cutting; it is one of the best varieties in cultivation, possessing the qualities of earliness, fine flesh and good flavor, abundant bearing, and late keeping; its size varies, the smallest generally weighing four pounds and the largest ten or twelve; it is deserving of extensive growth, both by the market gardener, for the supply of the market, and by all persons who are fond of this vegetable.

The grounds are laid out in tolerable good taste, with gravel walks and box edgings; there are a number of trellises bordering some of them, evidently intended for the cultivation of grapes; but they were mostly covered with dahlias, which were trained to them. On a fence facing the east were several *Isabella* vines, bearing good crops. The garden,

as regards its keeping, will compare with most others in general, but by no means with that of Mr. Johnson.

*Mr. Houghton's garden.*—This garden is situated at a considerable distance from Mr. Johnson's and Mr. Breed's, being at the north part of the village, a part known as Wood End. The garden contains, we should think, nearly two acres, which is well situated, and falls with a gentle slope, sufficient to carry off all superfluous moisture, and at the same time not so as to wash away the soil in heavy rains. It contains a small grapery and green-house, and a pit for propagating plants.

Mr. Houghton is an amateur and a great lover of plants, and has been at much expense to procure fine flowers. Having but little time at his command, his business occupying nearly his whole attention, he has accomplished a great deal in the gardening way; his whole garden, graperies and all, is managed by his own hand, and in an excellent manner. We found a tolerable crop of grapes in the green-house, about ripe, and a very good crop in the grapery just beginning to color; the vines were planted at the same time as Mr. Johnson's, in the spring of 1835, and have made a vigorous growth. They were turned out of pots, which is altogether the best system of raising vines for graperies or forcing-houses. On a back trellis the peach trees were trained excellently, and the wood laid in with the precision of an old practitioner; we also noticed some fruit upon them, although the trees are yet young. In the pit were numerous geraniums, and other cuttings of many different species of green-house plants, striking root. This pit is built with a double roof, the back and half of the front of which is blank, the remainder glass; under the blank part is a potting bench, built so as to contain the different soils, manures, &c. beneath. A pit is built with boards, underneath the lights, about two and a half feet from the ground; beneath horse dung is applied, which gives a fine heat to the soil or sand in which the pots of cuttings are plunged. It appears to be somewhat on the plan of our pit for growing cucumbers, described and figured in our vol. I, p. 403: by means of a door the dung can be introduced at any time, and the temperature of the soil kept at any required point. For a cheap propagating place it answers a very good purpose.

In the garden the finest plants which we noticed were a large specimen of *Pæonia Moultan* papaveræa, and two smaller ones of *p. Banksiæ*; the former flowered magnificently the past spring. All these stand out without any protection. The dahlias were flowering finely, as indeed they have almost every where this season; rain, however, is much needed here: the kinds were principally the more common ones. Mr. Houghton is a great grower of gooseberries, and has produced some fine ones; but we saw that his plants, in common with all others, had suffered greatly by the caterpillar, some of the bushes having been completely stripped of their leaves. Mr. Houghton has raised some most excellent specimens of this fruit.

*The Garden of Mr. Andrews Breed* is situated near Mr. Johnson's, and has been principally laid out this year. We had not time to call on Mr. Breed, but, in passing the garden, we noticed that it possessed some natural beauties, among others a small stream of water running through the highest part of it, sufficiently so to supply a small fountain in the lower part, if Mr. Breed should conclude to erect one. The garden is very pleasantly located, and what has been done is in good taste. Another year we hope to have the pleasure of calling on him.

REVIEWS.

ART. I. *Boston Journal of Natural History, &c. Part I. No. IV.* Hilliard, Gray & Co. *An Address delivered before the Boston Natural History Society, June 7, 1837.* By Hubbard Winslow. Published by the Society. Boston: Weeks, Jordan & Co. 1837.

WE have just perused with much satisfaction the fourth and concluding number of the first volume published by the Natural History Society of this city. To any one familiar with the splendid collection which graces its halls, and with the spirit which develops itself among its members in the various branches of the study of nature, this number will be of much interest. The generosity displayed, in opening its cabinets to the public, on appropriate seasons, exhibits also a laudable zeal for a diffusion of knowledge and the creation of a taste among the community. We know not why the halls of science, where may be found the prototypes and originals of all that is grand in art, should not be the resort of the intelligent and enlightened, as other places of public attention. The natural world has been too much neglected, and the grandeur and beauty of its economy overlooked. Amid the din and ceaseless bustle of social life, it is refreshing to the senses, as well as instructive to the heart and mind, to turn aside for a moment into these quiet nooks of other pursuits, and snatch a fresh breath from the exhilarating influence of nature. These moments of relaxation are necessary to our well being; and oftentimes the study of a shell, or the minute investigation of a moss, the analysis of organic matter, will save from dissipation and attendant ruin, many an individual, whose idle time would have been otherwise wasted and misspent. When, therefore, we see the spirit of enterprise for such institutions spreading throughout our cities and towns, whenever we hear of a new Society of Natural History, in its every branch, we hail with inexpressible delight the prospect of the diffusion of correct and sound principles towards a full and more perfect system of improvement and instruction. We believe, that for the young, no sounder nor more judicious preparation for the reception of moral and intellectual truths could be conceived nor followed, than the imbibing of a correct taste for such studies; and we speak from experience when we say, that to the old and advanced in life, no studies are so fascinating and improving, so admirably calculated to afford satisfaction, to fill up the blank of existence, naturally attendant on that period

when the mind and physical structure are rendered inapt for the more engrossing business of the world. We have marked with pleasure the enthusiasm enkindled in the retired man of business, and observed the energy imparted to the careless, inattentive youth. A simple flower may impart volumes from which to learn, and the meanest insect a code of moral duty.

A considerable portion of the present number is occupied with the valuable researches of the late and lamented Say on the Hymenoptera of North America, including observations on some species already described, and the discovery of several new species; being a continuation of a former paper.

The Ichthyology of the State (Massachusetts,) seems to be in a fair way towards a more perfect elucidation, from the judicious studies of Dr. Storer. We are introduced to a new and pretty species of those little and lively fishes so well known to every school-boy, in the pools and ditches of our salt marshes. Four species of *Hydrargyra* have been already described by Le Sueur; to these is added the present. Besides this, four other genera have been ascertained as belonging to Massachusetts, which are not mentioned in Professor Hitchcock's catalogue appended to his report on geology.

Next, a long and minute paper on some peculiarities in the economy of the cow black-bird, which, like the cuckoo of Europe, deposits its egg in the nests of other birds, pointing out with great freedom certain errors and hasty conclusions of Mr. Ord, in a late paper in Loudon's Magazine, on the same subject.

"Of all the known birds that are indigenous to North America," says Mr. Ord, in a communication to Loudon's Magazine for February, 1836, 'perhaps there is not one whose habits are so interesting as those of the cow-bunting, cow-bird, cow-pen bird or cow black-bird, (the *Fringilla pectoris* of Latham;) and yet there is hardly one whose history has been involved in greater obscurity.' These observations are just; and to the latter clause he might have added, that among American birds, there is hardly a single species whose habits are less generally known, except indeed by professed ornithologists, than those of this interesting bird. Its very existence among us is unknown to most; or if any are aware that we have a bird that imposes upon its neighbors the task of rearing its young, it is but too often confounded with the European cuckoo. But the fact is, our cuckoos, thus unjustly involved in the obloquy attached to the conduct of the European species, in the beautiful language of Wilson, 'build their own nest, hatch their own eggs, and rear their own young; and in conjugal and parental affection are nowise behind any of their neighbors of the grove.'"

This subject is so well known to our field naturalists as to render it improper to enter into a minute examination in this place. One peculiarity, however, we cannot omit, having ourselves observed a nearly parallel case.

"There is one circumstance, connected with the history of this bird, which does not appear to be generally known. It has been mentioned, that when a cow black-bird's egg is deposited in a nest newly finished, and before the owner has begun to lay, the bird will frequently enclose



the egg in fresh materials, so as to prevent it from ever hatching. It does not appear to be known that the bird will sometimes, in order to get rid of the intruder, bury, with the cow-troopial's, her own eggs. That such is sometimes the case, the following will show. In the summer of 1835, I found, in the botanical garden in Cambridge, a nest of the summer yellow-bird, which a brood had evidently but just left. Its peculiarly elongated shape attracted my notice. Upon examining it I found that the bird had apparently first constructed a nest of the usual shape, and had deposited in it three of her own eggs. At this period a cow black-bird had added another. Not wishing, as it would seem, to waste her time by rearing a stranger, to the probable destruction of her own offspring, and yet unwilling to be at the trouble of constructing a nest entirely anew, she merely built an additional story to it—thus effectually destroying the egg of the intruder, but with it, her own. In this upper story she had evidently succeeded in raising her second brood in safety. In the centre of this nest I found these four eggs thus singularly incarcerated.”

Still more on birds, and we are informed, in Art. 20, (nor need we be surprised, for we consider the natural history of the State scarcely investigated,) that forty-five birds not mentioned in the above catalogue have been enumerated as indigenous, since it was published. We beg leave to correct a slight error, in reference to the *Thalassidroma Leachii*; the specimen in question being procured at Ipswich, by Mr. William Oakes, and not by the gentleman mentioned.

A paper on comparative anatomy, as exhibited in a fine specimen of the Galapagos turtle, includes much that is valuable to this branch of natural science. Nor has conchology been overlooked. Two new species of that beautiful genus *Marginella* are described, besides the commencement of a monograph on the *Helices* of the United States. This singular family of animals, comprising the destructive slug of our gardens, and the no less injurious snail of Europe, has lately received much attention among our native conchologists. Their manners and intrinsic beauty, as well as their economy, render them objects of curiosity and study. We have oftentimes, when collecting them in the Western States, been gratified with the great variety of species observable in the rich beech woods, on some damp morning in summer,—watching their motions as they pursued their slimy track over some prostrate and mossy trunk, or when assembled in groups under the mouldering bark, the number of scavengers and operatives in the destructive process, which follows the destiny of one and precedes the production of another race of plants. Some of great beauty would be prized not only for this character, but for their great rarity. Others are of a very limited location. While some are extremely delicate, others are remarkably stout and strong, and while some are microscopically minute, others are of considerable size. Several are common to the Eastern and Western States, but many are desirous of particular tracts. Few, if any, of our native species are destructive to

the horticulturist, being found only in places not subject to his labors, while to the farmer they are of little consequence, unless to enrich the soil by their exuviae; a few clearings and burnings extirpating the race. For their more particular history and manners, we quote from the paper itself.

"The number of described species of the very natural genus *Helix*, inhabiting the United States, is already considerable; and the researches of naturalists are every year adding to it. For a knowledge of the greater part of them we are indebted to the labors of the late Mr. Thomas Say, who, if his valuable life had been longer spared to science, would have enriched conchology with descriptions and figures of all the known species. As a work so desirable is not now expected from any other source, and as there already exists some confusion among the species, caused by the want of correct figures, without which the most accurate descriptions are liable to be misunderstood, I shall make an attempt (though, I am conscious, in an imperfect manner,) to supply the history of this genus as it exists in the United States, and to ascertain and fix the species discovered by our own authors, before they shall have been irrecoverably appropriated by others.

"It has been often objected to the study of shells, as commonly pursued, that it is not a branch of natural history properly speaking, as it gives us no information of the beings by which they are constructed and inhabited; but consists merely of an artificial arrangement and description of their least destructible parts. This objection has great weight, and should induce those who have leisure and opportunity to devote more time than has hitherto been given, to the observation of the habits and manners of the animals, which, it cannot be doubted, are fully as interesting, and as illustrative of the benevolence and power of the Author of nature, as those of any other class. To avoid this imputation in the present instance, a description of the animal has been given when it has been possible to procure living specimens, and such notices of their habits as the limited opportunities afforded by a city residence have enabled me to obtain, will be found under the remarks on the respective species. It is to be noticed here, that the habits of the genus are remarkably similar; so much so, that an account of one species may serve for the whole, and those of the European species do not seem to differ in any considerable degree from those of our own.

"The extraordinary power of reproducing some of their members, and even the head itself, when mutilated, which they were discovered to possess by Spallanzani, and the promulgation of which fact was received with so much doubt and incredulity by the learned,\* exists also in our species. The uncertain points of their history, such as the question whether the black points on the end of the superior tentaculæ, which are generally considered to be eyes, are true organs of vision, are equally matters of doubt with us. The state of the question as to this particular is somewhat singular. The anatomists, including Swammerdam, Spallanzani and Bonnet, affirm that the part in question is a true eye, possessing the structure which in other animals is adapted to the sense of vision; while careful observers cannot distinguish, in the actions of the living animal, any proof of their sensibility of light or consciousness of the presence of objects, except when in actual contact with them; and therefore infer, that they are mere organs of touch. The truth may probably be between these extremes. These animals

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\* "The controversy which arose on this subject caused a vast sacrifice of life among these animals. Adanson, one of many who called the fact in question, acknowledged that he destroyed several thousands in experiments."

are nocturnal, and pass the greater part of their lives under logs and stones, or burrowing in the ground, where but few rays of light can reach them; their eyes, adapted to such situations, may be merely rudimentary, and become useless in the broad light of day. Besides, although the eyes are situated in the tips of the tentacula, these members themselves may be still organs of touch, as they undoubtedly are in other genera, when the black points are situated at their base; and the habit they have of applying them to every object which they approach, confirms the supposition that they are constructed for this purpose. That the black points are eyes may very fairly be inferred analogically, from the recent observations of a naturalist on one of the largest animals of this class. Rev. Lansdowne Guilding (Zoological Journal, vol. iv, p. 72,) asserts, that in the giant species of *Strombus*, in the Caribbean Sea, the eyes are more perfect than those of many vertebrated animals,—that they have a '*distinct pupil, and a double iris, equalling, in beauty and correctness of outline, those of birds and reptiles.*'

"In comparing our species with those of Europe, there are some general considerations deserving of attention. Our shells are more uniform and less brilliant in their coloring, and are in general destitute of spots and painted bands or zones. This peculiarity seems to be connected with, and perhaps grows out of, the habits of the respective animals which in Europe are common in gardens and fields, on walls and hedges, and other places exposed to the action of light, while in this country they are generally found in forests, sheltered under logs and stones, and are rarely seen abroad except during twilight and in damp weather. They do not infest our gardens and cultivated fields, nor cause damage to vegetation. Another peculiarity is, the great proportion of our species whose aperture is provided with tooth-like appendages, amounting indeed to more than half of the whole number, and to more than three quarters of those with reflected lips.

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 "The natural food of the genus is generally supposed to be vegetable matter, and the formation of the mouth and jaws seems to be peculiarly well adapted for cutting fruits and the succulent leaves of plants. The dental edge of the upper jaw, with its minute serratures, being applied against the substance to be eaten, the semilunar, sharp-edged instrument, which Spallanzani calls the *tongue*, is brought up against it, cutting out and carrying into the mouth semi-circular portions of the substance. This operation is carried on with great rapidity, and the substance to be eaten soon disappears. It is certain, however, that they are fond of animal substances, and sometimes prey upon earth worms, their own eggs, and even upon each other; but the slowness of their motions forbids the idea of their being able to sustain themselves by habitually preying upon other animals. They, in their turn, become the prey of various birds, and it is no uncommon thing to observe, in the forest, clusters of broken shells, on the top of logs or other situations, which have been chosen by the birds as convenient for breaking the shell and extracting the animal."

The present number, like the preceding, is embellished, not only with beautiful but with really useful plates, sufficient to aid and guide the naturalist in the absence of specimens and other tangible authority. As a whole we may be proud of such a work issuing from the united labors of the press, the pen, and the observing eye of the naturalist, as contributive to the onward progress of a definite system of our native natural science.

We turn to a brief consideration of the address. Mr. Winslow has endeavored to maintain the position that there is an intimate relation of natural science to revelation—a fact, indeed, almost too palpable for contradiction. He combats the popular prejudice existent to the contrary, and too prevalent even among the more enlightened of our day. He considers the wide range of natural science in every department as in perfect unison with revealed religion—the Deity pointing out His will and purposes, His wisdom, power and goodness, in the one and in the other. He makes a just discrimination between the particular objects of both, nor overlooks their mutual importance.

“An unhappy prejudice has often existed between natural science and religion. It has been so frequently and earnestly insisted that science is at variance with revealed religion, that the friends of religion have sometimes indulged sentiments of hostility against science, and have thus given no small occasion for the reproach, that ignorance is the mother of devotion. A large measure of the prejudice against religion among the more intelligent classes, has come from this source. They have been ‘accustomed to regard religion as a sort of Utopia, a land of shadow and of fiction, where, wrapt in pleasing vision, credulity reposes on the lap of imposture.’

“It is too late for a religion to maintain ground against the science of nature. She is rapidly extending her dominion, and with the force of demonstration is she challenging the confidence of mankind. Every enlightened and benevolent mind must contemplate her progress with intense interest.

“Our knowledge of the character and government of God is derived both from his works and from his Word. Both of these are, in strict truth, a revelation; but in accordance with popular usage, and to avoid circumlocution, let us call the knowledge obtained from the one source science, and that obtained from the other revelation.

“To enlarge the boundaries of human knowledge; to instruct us how to remove or alleviate misery; to open to us ever growing and fresh sources of happiness; to lift our thoughts upward, and introduce us to the great Cause and Guardian of the universe—these are the noble objects of all science. These too are the objects of revelation.

“But while revelation was given to teach us religion, and not natural science, it is yet evident, that whatever reference is had to facts in nature by a revelation truly divine, must be such as to endure the test of all the subsequent discoveries of science; and furthermore, as all true religion is founded in nature, it must exhibit facts in the moral world corresponding to those in the natural world.”

Speaking of geology—

“Cuvier, one of the most enlightened geologists of the age, deduces, from certain progressive changes on the earth's surface, as well as from the concurrent traditions of many nations, that the first appearance of man upon the face of the earth cannot be referred to a period farther back than about five or six thousand years from the present time.

Geology also instructs us, that since the creation ‘the fountains of the great deep’ have been ‘broken up,’ and that mighty floods of water have swept the earth's surface. Especially the last great cataclysm, described by Moses, is so fully demonstrated to the mind of every ge-

ologist, that the identity of the deluge taught us by science with that taught us by revelation, is now established beyond a philosophical doubt. Yet who does not know that the Mosaic deluge has ever been, till quite recently, since the introduction of the science of geology, the subject of the severest ridicule and most confident sport of infidelity?"

We can conclude this article in no better way than by giving again his own words, as illustrating his theory, and as in full union with our own belief.

"It follows further that true science is a friend to true religion. It is only the 'opposition of science *falsely* so called,' that religion shuns and condemns. Other things being equal, the more there is of true science, the more will there be of true religion, in any community; and, vice versa, the more there is of religion, the more will there be of science. In all preceding ages, those nations and communities which have had the most of true science, have had the most of true religion; and if at this moment you take the map of the world, and draw your pencil around the kingdoms most enlightened by Christianity, you circumscribe precisely those most enlightened by science. Since science and revelation teach the same, kindred, and analogous truths, the one by human study and the other by divine communication; since the truths they teach are comprehended and mutually affianced in one great connected system; since they occupy different departments, but conspire together for the same end—the intellectual and moral elevation of our race—they ought to be united, they *must* be united in every scheme of sound and comprehensive philosophy, and in every successful effort for the permanent good of mankind. A hall of successful science excluding revelation—a college for liberal education detached from all religion, yet tending to promote human knowledge and happiness—is an anomaly which the world never saw, and of which none but a deluded brain, or one ignorant of true philosophy, ever dreamed.

"Science can never supersede the importance of revelation, for the history of mankind has proved that revelation must always precede and attend true science; that it is necessary, first, to put the human mind upon the track of successful investigation, and, secondly, to take it up where human science leaves it, and conduct it upward to other and higher knowledge, which science, unaided, is unable to reach."

J. L. R.

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## MISCELLANEOUS INTELLIGENCE.

### ART. I. *Foreign Notices.*

#### ENGLAND.

*Caméllia reticulata*.—A splendid specimen of this magnificent species was exhibited at a meeting of the London Horticultural Society, in May, by Mrs. Lawrence; it was accompanied with a note detailing its treatment. The best method has been to put the plant in the garden, and keep it in a cold pit, protected with glass, but without the application of heat. As soon as the frosts are gone the glass should be removed, and the

plant left to take its chance. It was the finest specimen ever exhibited before the Society. (*Hort. Jour.*) [This plant cannot be so managed in this country, owing to our intense cold winters; but it offers some new hints respecting its growth. We have always thought that it required a stronger soil than the *C. japonica* and its varieties, and considerable pot room; and the above remarks coincide with our views. The plants should, also, be grown to a good size before they are allowed to produce flowers; too frequently they are seriously injured, by letting several flower-buds remain upon a small plant; the consequence is, that they receive a check, which it takes them a long time to recover. This species is also impatient of heat.—*Cond.*]

**Boiling Seeds previous to Planting.**—Some notice will be found at p. 109 of some experiments tried upon the vegetation of seeds, by steeping them in water at the boiling temperature. Dr. Lindley has communicated to the Horticultural Society the result of an experiment tried by him in boiling seed, and the effects in advancing vegetation. The experiment had been tried by Sir John Herschel, and subsequently confirmed by Professor Henslow, of Cambridge, and the results in each case were the same. Dr. Lindley exhibited a pot in which seeds of the acacia had been sown by Mr. Palmer of Bromley, after being subjected to different periods of boiling, which were obtained from Capt. Smith of Bedford. Those which had been boiled five minutes had come up in thirteen days; for three minutes, in fourteen days; for one minute, in sixteen days; whilst some which had not been boiled had not made their appearance at the time the communication was read. This will be interesting to the horticulturist, as pointing out a method to germinate seeds which it has heretofore been impossible to make grow. (*Hort. Jour.*)

***Clianthus puniceus.***—This new and splendid plant was exhibited at many of the various horticultural and floricultural societies throughout the kingdom last spring. At the Sheffield Horticultural Society a beautiful specimen was exhibited twelve feet high. (*Id.*) In the *Magazine of Botany* it is stated that this splendid plant is found to succeed admirably well when trained against an open wall, with a slight protection during winter. A plant has stood out, two successive winters, in the nursery of the Messrs. Rolliasons of Tooting; and although the shoots have been slightly injured by the early frosts, it has grown luxuriantly, and flowered, the past summer, in its greatest possible perfection. Mr. Paxton states that it must make a "most charming feature" in a collection of ornamental climbing plants. The clianthus will not, however, in all probability, bear the same treatment in this country, (unless in the Southern States,) as our winters are so much more severe than in Britain. As soon as the plants become more common, it may be well to make a trial; it is a native of New Zealand, and, with careful protection, until the plant attains a good size and becomes woody, it may then be able, with the ordinary protection of other vines, to live through the winter. *Wistaria Consequana* was once considered tender; but it stands out in New York without the least protection whatever. At any rate, the clianthus will be a valuable plant to train to a back wall of a conservatory or green-house, where its blossoms would be one of the most gorgeous objects imaginable.

It has been recommended to grow the clianthus in peat soil; but Mr. Paxton observes that a longer acquaintance with the habit of this beautiful plant has convinced cultivators that it will not thrive well (as once thought,) in peat soil; but, on the contrary, requires a good rich loam, with a portion of well rotted manure incorporated, as peat soil is best adapted for plants of a hard woody habit and slow growth; while such as grow luxuriantly, and are rather of a succulent habit, (like the clianthus,) require a stronger and more nutritious soil, and a great supply of water during the summer season.—*Cond.*

## ART. II. Domestic Notices.

*New York Horticultural Society.*—I am sorry to inform you that we shall not have any Horticultural Exhibition this season. It is a disgrace to our city. Whilst the Societies in Baltimore, Washington, Philadelphia, and Boston, are displaying to their fellow-citizens the beautiful as well as useful products of their gardens, the New Yorkers are so eat up with avarice and immorality, that they cannot afford to patronize a horticultural exhibition, even when the tickets are put at twelve and a half cents each. This is not on account of hard times, for we have now six theatres open every evening, (and a few weeks ago we had two more, and a circus, in full play,) and they are all crowded. For these five years we have not had an exhibition that has been of any pecuniary advantage to the Society, but rather a loss; last year we had a heavy loss, it being quite a failure: people were so engaged in the engrossing of fictitious wealth, that they had not time to admire the beauties of nature, except in so far as building lots, composed of solid rock, or covered with water, were concerned. At our annual election, (which requires but thirteen persons to make a quorum, to vote,) we could only muster ten, so that our Society is virtually defunct. We make a last effort to-morrow night.—*Yours, J. H., Sept., 1837.* [We regret to learn that such a sad state of things exists with our horticultural brethren in New York. It should not be. A Society, with Dr. Torrey at its head, the fine rooms of the Lyceum of Natural History to exhibit in, and located in a city abounding with fine gardens and amateur gardeners, is deserving of a better fate. We hope that the "last effort" has succeeded, and that the New York Horticultural Society, the first established in the country, will yet exert that powerful influence which its first founders anticipated.—*Cond.*]

*Hippóphæ rhamnoides fertilized by the Shephérdis.*—We are not aware that this shrub has ever fruited in this country, and presume that as it is docuous, the staminate variety has never been introduced. A specimen about six feet high, in this garden, situated in the immediate neighborhood of the staminate plant of *Shephérdis argentea*, has a single branch now loaded with yellow succulent fruit, considerably larger than the Buffalo berry. The pistillate flowers have been produced for some seasons past; but as the pistillate plant of *Shephérdis* stood between it and the staminate one, the *Hippóphæ* has not probably been fertilized but by the excess of pollen formed the present season. Of course hybrids will be produced, and it proves how strongly the two genera are related, which may indeed be inferred, also, from the fact that the *Shephérdis* was formerly called *H. argentea*. Are any of your readers in possession of the staminate variety of *H. rhamnoides*?

*H. rhamnoides*, commonly called Sea buckthorn, appears to us, from its abundance of thorny branches and close rapid growth, to be well calculated for a hedge. Loudon says, (*Ency. of Plants.*) the berries are much eaten by the Tartars; and the fishermen of the Gulf of Bothnia prepare a rob from them which imparts a grateful flavor to fresh fish. Every part of the plant abounds in a good yellow dye.—*A. J. D., Botanic Garden and Nurseries, Newburgh, N. Y., Sept., 1837.*

*The yellow Locust, Robinia Pseudacácia.*—The cultivation of this most useful and beautiful tree has been attempted, with various success, in different parts of the Union. In many districts it is so liable to the attacks of the *borer*, that the wood is quite useless for timber, and even the trees themselves have an unsightly appearance; while in others they are perfectly sound, and of the finest growth. The attack of this insect appears to us to depend in a great measure upon the luxuriance

or feebleness of the growth of the tree, and not to be the cause of it; for in situations where the soil is well adapted, and the trees are vigorous, they are seldom attacked, except in the lateral branches, while in cold, clayey, or even warm heavy loams, the growth is so weak and slow that the tree is exposed to all the ravages of the borer. In the deep sandy loam of Dutchess County, N. Y., this tree attains its utmost perfection. Specimens of it are now growing at Cedar Grove, the beautiful residence of J. P. DeWint, Esq., in that County, nearly ninety feet in height, and the usual average of full grown trees (of which the lawn contains a great number,) is from sixty to ninety feet. This situation is upon the east margin of the Hudson River, where the soil is a deep sandy loam. On the opposite shore the soil is a strong heavy loam, almost without sand, and the locust scarcely rises to the height of forty feet, and is much attacked by the insect. In soils where this tree thrives well it is the most profitable of all timber trees for cultivation. To the botanist its name *Robinia* gives rise to the pleasing association of Jean Robin, herbarist to Henry IV, and author of *Histoire des Plantes*, 1660, who first introduced it into Europe. We observe, in the recent French journals, that the Paris perfumers, who are *au fait* at stealing the slightest odor that floats on the summer breeze, have succeeded in extracting from the locust blossoms a delicious perfume, which much resembles that of orange flowers, and is used for the same purposes.—*Id.*

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### ART. III. Massachusetts Horticultural Society.

*Saturday, Aug. 26th, 1837.—Exhibited.* Fruits: From E. Voss, President of the Society, Shropshirevine, early Harvest, red Juneating, high-top sweeting and Williams's Favorite apples, (the latter very handsome.) From B. V. French, early Harvest apples, and handsome pears, the name unknown. From R. Manning, Fondante d'Ete, (second rate with Mr. Manning,) apple pear of the County of Essex, (distinct from the pomme poire of Europe,) Rousselette hatif Cox and blanquette a longue queue pears, (sometimes called the Skinless, but different;) also, early Harvest and bough apples, and black Morocco, reine Claude violette, and purple gage plums, (the former variety sweet, good and early.) From E. M. Richards, early red-streak, Lady Haley's nonsuch, red Juneating, early bough, summer red Calville, Curtis's early striped, Benoni, Williams's Favorite, and Shropshirevine apples; all fine specimens. From Abiel Coolidge, West Cambridge, fine gold of summer pears. From S. Pond, Royal de Tours plums, a fine variety. From James Brown, Boston, American filberts.

*Sept. 2d.—Exhibited.* Flowers: From S. R. Johnson, about twenty specimens of dahlias, among which were Mrs. Wilkinson, Duchess of Buccleugh, Angelina, Cross's yellow, Countess of Beresford, and Criterion. From S. Sweetser, about twenty specimens of dahlias, some of which were Napoleon, golden Sovereign, Venus, Metropolitan Calypso, Criterion and Glory. From J. Towne, Clara, Duke of Bedford and Queen Elizabeth. From J. Donald, gardener to M. P. Wilder, about forty specimens of dahlias, among which were Dodds's Mary, Conqueror of Europe, Gem, yellow Perfection, Queen Elizabeth, King of Beauties, Criterion, Juliet, Village Maid, Sir H. Fletcher, golden Sovereign, sulphurea elegans, Apollo, Exemplar, Village Maid, Rosa superba, Red Rover and Contender. From Hovey & Co., up-



wards of forty specimens of dahlias, among which were Princess Victoria, Dodds's Mary, and Mary Queen of Scots, Conqueror of Europe, sulphurea elegans, Lavinia, purple Perfection, Rosa superba, Venus, Criterion, Lady of the Lake, Hermione, Croesus, Red Rover, Mrs. Broadwood, Angelina, Burgundy, Ariel, Paragon, Duchess of Buccleugh, Desdemona, Beauty of Dulwich, Countess of Sheffield, Sir H. Fletcher, Beauty of Camberwell, and Clio; also, several large bouquets. From S. Walker, several varieties of dahlias, among others Augusta, Countess of Liverpool, Wilmot's Superb, and Agrippina; also, fine bouquets of cut flowers. From Messrs. Winship, dahlias of many kinds, and other flowers. From T. Mason, bouquets and dahlias.

Fruit: Large red and green sweetings and Lady Haley's nonsuch apples, from E. Vose. Red Astracan, Agrise, Von Rezina, (beautiful,) and another variety of apple, the name unknown; also, Skinless, Bloodgood, (fine and good,) and Windsor pears, and Orleans, Bleeker's gage, and Byfield plums, from R. Manning. Porter apples of fine size, from J. L. L. F. Warren, Brighton. Williams's Favorite apples, (elegant specimens;) also, Corse's Field Marshal and white gage and Orleans plums, from A. D. Williams. Large and small red crab and the amber crab apples; also, Bingham, Duane's purple, Flushing gage, blue gage, green gage and white gage plums, from S. Downer. High-top sweetening apples, from Hovey & Co. August Muscat pears, from E. M. Richards. Early Royal George peaches, (beautiful,) from T. Mason. Bolmar's Washington; (these were the most splendid specimens we ever saw, one of them measuring seven inches in circumference, finely shaped and beautifully ripened;) green gage and Flushing gage plums, (all good,) from S. R. Johnson. Seedling(?), Orleans, Bolmar's Washington, Duane's purple and white gage plums, from S. Pond. Figs from R. L. Emmons, Boston. Branches of *Shepherdia argentea*, bearing ripe fruit, from the Messrs. Winship.

A meeting of the Society was held this day, at which the Executive Committee reported that they had procured a room for the use of the Society, not only for the annual Exhibition alone, but for the permanent use of the Society, the place which the Society occupies at present not being sufficiently large to enable the great number of persons who now visit the room to enter, or to allow of a fair display of the great number of flowers which are sent for exhibition. The room is in Tremont Row, No. 23, and is admirably adapted to the purposes of the Society.

*Sept. 9th.—Exhibited.* Flowers: From S. Sweetser, a great variety of dahlias, among which were Napoleon, golden Sovereign, Jackson's Rival, Bride, Desdemona, Duchess of Buccleugh, Criterion, Paris, Urania, Granta, Queen of dahlias, Countess of Liverpool, Paragon, and King of dahlias. From S. Walker, several fine large bouquets, and Springfield Rival, Augusta, Granta, Wilmot's Superb, and other dahlias. From Wm. Kenrick, bouquets of flowers. From S. R. Johnson, a great variety of dahlias, consisting, with others, of Apollo, Mrs. Wilkinson, Augusta, Angelina, Duchess of Buccleugh, Red Rover, Cross's yellow, and Criterion; also, fine specimens of *Phlox Drummondii*, and the Parisian belle, Tea Hyméné, and Jaune Désprés roses. From Jos. Breck & Co., asters, new dark coreopsis, zinnias, sweet peas, marygolds, dahlias, and bouquets. From Daniel McIntyre, a variety of dahlias, among others Juliet, Exemplar, Stone's yellow perfection, peerless white, Lilac perfection, Marquis of Northampton, Lord Liverpool, Gem, Ariel, Red Rover, Wells's Dictator, and Countess of Liverpool. From T. Mason, dahlias, roses and bouquets. From W. E. Carter, of the Botanic Garden, about forty varieties of dahlias, embracing many fine specimens, together with other flowers. From

Hovey & Co., upwards of a hundred varieties of dahlias; among others were Princess Victoria, Mary Queen of Scots, Conqueror of Europe, Mary, Mrs. Broadwood, Sulphurea elegans, Sir Henry Fletcher, Warminster Rival, golden Sovereign, Lavinia, Red Rover, Angelina, Exemplar, Liberty, purple Perfection, Zarah, Enterprise, Ariel, Countess of Sheffield, Hermione, Star, Marchioness and Cæsus; also, fine large bouquets. From M. P. Wilder, about a hundred varieties of dahlias, among which were Conqueror of Europe, Contender, peerless white, Lady of the Lake, Angelina, Clara, Bride of Abydos, Ariel, Napoleon, golden Sovereign, Gem, Juliet, Exemplar, Criterion, Stone's yellow perfection, Rainbow, Lavinia, Paragon, and Duchess of Sutherland; also, a fine collection of cut flowers of roses. From Messrs. Winship, dahlias, and cut flowers of *Astrantia major*, *Lobelia speciosa*, *Funkia alba*, acacias and annuals. From D. Murphy, bouquets of flowers.

Fruit: Washington, Cushing and St. Ghislain pears and Porter apples, from S. Downer. Julianne pears and Benoni apples, from E. M. Richards. Williams's Bon Chrétien pears, and Corse's Nota Bene plum, from E. Vose. August Muscat, Francreal d'Ete, orange Tu-lippe, Rostieza, sucre d'Hoyerswerda, and a variety of pear, the name unknown; also, green gage, old damask, Bingham, Bolmar's Washington, long blue French, large red Thoulouse, Cooper's Imperial violet, Dana, Prince's Imperial gage and Elfrey plums, from R. Manning. Zerico and Warren sweeting apples, from J. Warren. Williams's Favorite, Porter, Hawthorndean, another variety of apple, the name unknown, and Williams's Bon Chrétien pears, from J. Mackay. Two unknown kinds of pears, from John Breed of Belle Island. Smith's Orleans plums, and a variety without a name, from B. V. French. Bingham, white gage, Smith's Orleans, and Duane's purple plums, from S. Pond. Smith's Orleans and green gage plums, from J. S. Cabot, Salem. A fine large plum, without a name, from A. D. Williams. White gage, Bolmar's Washington and Van Zandt plums, from S. R. Johnson; these specimens of the Washington were the finest we have ever seen: (Mr. Johnson's white gage and Prince's Imperial gage are identical.) From R. T. Paine, Esq., specimens of pears, the name unknown.

The annual Exhibition of the Society took place on Wednesday, Thursday, Friday and Saturday, the 20th, 21st, 22d and 23d of September, at the Society's new room, in Tremont Row. The arrangement of the stands for showing the plants and flowers, which, we understand, have been put up with a view of remaining permanent, is very good, and reflects credit upon the special Committee under whose direction they were erected. The room is very spacious and well lighted, and, saving that it is rather too low, is as good a one as could be procured, at a rent which would be within the Society's means at the present time.

It was the intention of the General Committee of Arrangements to have procured a larger hall for the annual Exhibition, and Faneuil Hall was applied for, but could not be procured, on account of its pre-occupancy by the Charitable Mechanic Association, for their Exhibition and Fair, which took place at the same time. Had it been available, the show would have been the most extensive and magnificent that the Society has ever yet made.

The Exhibition was, on the whole, most gratifying to the lovers of horticulture. The season has been favorable, and the quantity and quality of fruit, as well as the abundance of flowers, particularly of dahlias, far surpassed any previous exhibition. Of green-house, hot-house, and other plants, a large display could not have been expected,

from the size of the room not admitting of a great number without occupying too much space. But such as were exhibited were exceedingly fine specimens.

The weather was delightful during the whole Exhibition, and the room was crowded with all the taste and fashion of the city. So far as we have heard an expression of opinion, the present annual display has been one of the best got up, the most fully attended, and has afforded the greatest delight and satisfaction to the numerous visitors. The exhibitors of flowers and fruit seem also to have been unusually enthusiastic. The specimens of dahlias were daily renewed and re-arranged, so that the last day of the Exhibition excelled, or fully equalled, the first.

On Wednesday the 20th, at twelve o'clock, an Address was delivered before the members of the Society and the public, at the Swedenborgian Chapel, in Tremont Street. It was listened to by a very numerous and enlightened audience, and the address, although upon a subject which, it would seem, has been exhausted, was replete with interesting and historical information, occasionally animated by sparkling touches of wit. We shall probably have occasion to notice it at length hereafter.

On Saturday, the closing day of the Exhibition, at half past two o'clock, the Committee of Arrangements sat down to a dinner, at Concert Hall. The dessert was supplied from the beautiful specimens of fruit exhibited. A large portion of the contributors of fruits and flowers, as well as the principal officers of the Society, were embraced in the Committee, and the occasion was one of great hilarity. We have never been present at any similar meeting when we were more highly delighted. The utmost harmony prevailed—toasts, glees and songs followed the dessert—and the company separated, late in the afternoon, with the anticipation of meeting again upon the return of another anniversary.

Before commencing with the report of the plants exhibited by the respective contributors, we should particularize a few. Two orange trees, (*Citrus decumana*,) from the Hon. John Lowell, were the most conspicuous objects in the room. A fan palm, (*Chamærops humilis*,) from J. P. Cushing, was elegantly grown, and attracted great attention. A large sago plant, (*Cycas revoluta*,) from J. Lemist, Esq., added much to the display of plants. The silver tree, (*Leucadendron argenteum*,) from the Botanic Garden, was highly ornamental. Two agaves, from the Messrs. Winship, were large and fine specimens. A yellow tea rose, in fine bloom, from Messrs. Hovey & Co., was universally admired. The acacias of M. P. Wilder were remarkably well grown, and contributed greatly to the decoration of the room. Variegated holly and *Erica colorans*, from J. D. W. Williams, were superb plants. Some ericas and other plants, from Mr. Towne, were also truly charming. China asters, in pots, from S. Sweetser, added a gayness to the other plants, distributed, as they were, among them. *Crœon saligna* (?), from Dr. J. C. Howard, very fine. *Humea elegans*, from R. Murray, very singular. These we mention, as some of the most remarkable specimens.

Flowers: From J. P. Cushing, Esq., *Chamærops humilis*, *Ardisia crenulata*, *Stapelia grandiflora*, *Ixora* sp., *Kæmpferia* sp., *Treviana coccinea*, and some other plants. From the Hon. John Lowell, two fine orange trees, (*Citrus decumana*), *Erythrina picta*, and salvias, in large pots. From T. Mason, *Lotus jacobæus*, *Petunia phœnicea*, *Eupatorium odoratum*, roses and other plants. From J. Towne, *Gloxinia speciosa*, *Liatris squarrosa*, *Diosma ciliata*, *Myrtus tomentosa*, *Passerina* sp. and *Erica colorans*, regérminans, tubiflora, and pubescens minor. From the Botanic Garden, *Astræa Wallichii*, *Cycas revoluta*,

*Fuchsia globosa*, *Leucadendron argenteum*, *Acacia decurrens*, *Beaufortia decussata*, *Melastoma*, sp., &c.; also a fine collection of dahlias, among which the Duchess of Sutherland, Wilmot's Superb, Queen of dahlias and Countess of Liverpool, were very fine; passion flowers and roses were also shown by Mr. Carter. From Messrs. Winship, *Ardisia colorata*, *Asclepias salicifolia*, *Clématis flammula*, *Erythrina Crista-galli*, *Lonicera chinensis*, *Funkia alba*, *Eugenia australis*, *Atriplex Halimus*, a fine specimen of *Agave americana* var. *variegata*, asters, dahlias, &c. &c. From J. A. Kenrick, a variety of fine dahlias, among which we noticed Gem, Napoleon, Red Rover, Sir Henry Fletcher, Niobe, Stone's yellow Perfection, Jackson's rival yellow, lilac Perfection, King Otho, Lavinia and Queen Elizabeth. From S. H. Weld, Roxbury, a variety of dahlias.

From J. D. W. Williams, fine specimens of *Erica colorans* and *Plex Aquifolium* var. *albo marginatum*, and large myrtle and orange trees; also, fine double asters. From M. P. Wilder, a very fine collection of acacias, of upwards of a dozen species, all beautifully grown, and plants of the variegated holly, *Photinia serrulata*, *Magnolia fuscata*, *Alpinia nutans*, *pittosporums*, *neriums*, *camellias*, oranges, myrtles, &c. &c.; also, a splendid collection of superb dahlias, containing, with others, the following:—Conqueror of Europe, Mary, Mary Queen of Scots, Mrs. Broadwood, *Sulphurea elegans*, golden Sovereign, Bride of Abydos, yellow Perfection, Angelina, Juliet, Hermione, Sir Henry Fletcher, Gem, Ariel, Burgundy, Terecia, King of Fairies, Jackson's rival yellow, Lavinia, Marquis, Duke of Bedford, purple Perfection, Glory, Exemplar, Clara, Contender, Clio, Red Rover, Lady of the Lake, Lady Fordwich, lilac Perfection, Star, Jupiter, Zarah and Criterion; cut flowers of *Vallota purpurea*. From S. R. Johnson, a fine collection of dahlias, in which we noticed Angelina, Glory, Duchess of Buccleugh, Augusta, Queen Elizabeth, Polyphemus, Lady Fordwich, Gem, Criterion, Rainbow, Exemplar, Mrs. Wilkinson, Beauty of Camberwell, *Desdemona* and *Rosa superba*; also, cut flowers of roses, and elegant specimens of *Phlox Drummondii*. From Dr. J. C. Howard, a fine plant of *Cræton flabellifolia*.

From Hovey & Co., a very superb collection of magnificent dahlias, embracing some rare and brilliant varieties; the following are the names of a few:—Widnall's Marchioness of Tavistock and Princess Victoria, Mary Queen of Scots, Conqueror of Europe, Dodds's Mary, Juliet, *Sulphurea elegans*, Elphinstone's Mrs. Broadwood, purple Perfection, King of yellows and *Rosa superba*, Gem, Sir Henry Fletcher, Countess of Sheffield, golden Sovereign, Stone's yellow Perfection, Warminster Rival, Ariel, Selwood King, Zarah, Red Rover, Rose Incomparable, Exemplar, Enterprise, Toward's Adventure, Angelina, Hermione, Queen of scarlets, Lavinia, Star, Bride of Abydos, *Cræsus*, King Otho, Beauty of Dulwich, Liberty, Fisherton Rival, Niobe, Napoleon, Venus, Criterion, Wheeler's Marchioness, Penelope, lilac Perfection, Paragon, Burgundy, and Lady of the Lake; also, a beautiful plant of the yellow tea rose, with numerous blossoms expanded, *Yucca gloriosa*, a large *Acacia lophantha* and *Erythrina Crista-galli*; two very large bouquets, and fine specimens of the new dark coreopsis, *Verbena Aubletia*, scarlet zinnias, petunias, *Madia splendens*, marygold, clarkias, and a great variety of superb double asters. From S. Sweetser, a variety of fine dahlias, among which were Napoleon, Metropolitan Calypso, *Desdemona*, Urania, Lavinia, Zarah, Glory, Jackson's rival, golden Sovereign, Hermione, Beauty of Cambridge, Paragon, Bride of Abydos, Criterion, King of dahlias, Venus, lilac Perfection, Mrs. Wilkinson and Queen of dahlias; also, two fine begonias and several pots

of fine double asters. From R. Murray of Waltham, a beautiful specimen of *Humea elegans*.

From Jos. Breck & Co., a variety of dahlias, with others the following:—Exemplar, Gem, Sylvestra, Rival King, Duchess of Sutherland, Lavinia, Dennisi coccinea, Mrs. Wilkinson, Jackson's rival yellow, yellow Perfection, Metropolitan Calypso, Medusa and Queen of dahlias; also, specimens of marygold, zinnias, *Verbena Aubletia*, scabiouses, gillias and seedling pansies. From D. McIntyre, Cambridgeport, a fine collection of beautiful dahlias, among which were Sterling gold, golden Sovereign, Jackson's rival yellow, *Rosa superba*, Mary Queen of Scots, Mrs. Broadwood, Juliet, Ariel, Polypheumus, lilac Perfection, Angelina, purple Perfection, Red Rover, Gem, King Otho, black Ajax, Glory, Criterion, Mrs. Wilkinson, Bride of Abydos and Beauty of Dulwich. From Wm. Wales, Dorchester, plants of the yellow and common tea and Noisette *Amie vibert* roses, myrtles, *Verbena venosa*, *Alloysia citriodora*, &c. From J. Lemist, Esq., a splendid plant of *Cycas revoluta* and elegant specimens of *Erica colorans* and *Eugenia australis*. Bouquets were contributed by Wm. Kenrick, Jos. Balch, S. Walker, Hovey & Co., S. Sweetser, J. A. Kenrick, D. Haggerston, R. Murray, Wm. Miller, T. Mason, D. Murphy, Wm Wales, and others. From J. W. Russell, bouquets of sweet peas.

Fruits: From R. Manning, thirty-four kinds of pears, some of them quite new; the names are as follows:—Jackman's melting, Jalousie, Naumkeag, Harvard, Pope's scarlet major, Saunders beurré, beurré Colmar d'Automne, belle Lucrative, Dearborn's seedling, beurré von Marum, beurré Knox, Chair à dame, Julienne, green pear of Yair, Napoleon, Marie Louise, Surpasse virgoulouse, Verte longue, Urbaniste, Figue de Naples, St. Ghislain, Summer rose, Vallée Franche, pastorale, Fulton, Styrian, Henry IV, Autumn superb, Wilkinson, beurré Bosc, beurré Spence, beurré Duval and Gloria pears; the three latter were exhibited for the first time in this country—the specimens were all fine, though many were, of course, unripe; also, new red crab and Swaar apples; German prune, green gage, French long blue, Diamond (good,) and Sharp's Emperor (beautiful,) plums. From E. Bartlett, fine specimens of the Roi de Wurtemberg, Williams's Bon Chrétien, Cushing, Fulton and striped Doyenné pears; Hawthorndean, monstrous pippin and Gravenstein apples. From S. Downer, a fine collection of fruit, viz. Iron, Duchess d'Angouleme, Seckel, Moorfowl egg, St. Ghislain, beurré Diel, Roi de Wurtemberg, (elegant specimens,) Andrews, Bleeker's meadow, Urbaniste, Bezi Vaet, Passe Colmar, Washington, Lewis, Harvard, Fulton and Dix pears; pumpkin sweeting, Lady, Porter, Nonsuch, River, Spitzemberg, Pearmain, Rhode Island greening, Seaver sweeting, and yellow and red crab apples; rareripe peaches—all fine. From E. Vose, superb specimens of pears, apples, &c., viz. Passe Colmar, Easter, beurré, Williams's Bon Chrétien, Roi de Wurtemberg, Napoleon, Urbaniste, Andrews, Lewis, Wilkinson and Bergamotte de la Penticote pears; Lady Haley's nonsuch apples, remarkably superior; grosse Mignonne peaches, from open air culture, beautiful.

From B. V. French, Archduke of Austria, Tillington, Urbaniste, Williams's Bon Chrétien and Bleeker's meadow pears; Ruggles, River, Porter, Dutch codlin, monstrous pippin, yellow bellflower, garden striped and Siberian crab apples; Smith's Orleans and Coe's Golden Drop plums. From E. M. Richards, Verte longue, Seckel and Grise bonne pears; summer pearmain, Benoni, Williams's Favorite, red Juneating, summer gilliflower, Hawthorndean, Orange sweeting, and other sorts, of apples; several varieties of peaches. From Thomas Mason, black Hamburg, St. Peter, white and golden Chasselas and

Lombardy grapes; Elruge, Brugnion, and Broomfield nectarines; Royal Kensington and Royal George peaches. From E. Breed, Seckel, Roi de Wurtemberg, Swan's Egg and Williams's Bon Chrétien pears; black Hamburg grapes. From S. Pond, Julienne, Bon Chrétien and Andrews pears; Violette Imperatrice plums. From Hamilton Davidson, Charlestown, Rousselette de Rheims and Williams's Bon Chrétien pears; also, muskmelons and Siberian crab apples. By Judge Heard, Watertown, russet apples of the growth of 1836. From Mrs. T. Bigelow, lemons and oranges from her green-house, rareripe peaches and French apples, the name lost. From T. Willott, a basket of fruit, containing Roi de Wurtemberg and Williams's Bon Chrétien pears; black gilliflower, York russet, Baldwin and blue pearmain apples; also, rareripe peaches and green fleshed melons. From A. Mitchell, Nantucket, black Hamburg and white Chasselas grapes, from a vine, the branch of which that produced the fruit having been girdled; they were very handsome. From Jacob Tidd, two clusters of the white Nice grape, one weighing six and a half and the other four pounds.

From D. Haggerston, gardener to J. P. Cushing, Esq., a grape vine in fruit, in a pot, and two pine apples in pots, each finely grown and superior specimens; also, white Frontignac, white Chasselas, and black Hamburg grapes. From W. H. Cowan, gardener to the Hon. T. H. Perkins, the following varieties of grapes:—black Cluster, black Frontignac, Frankindale, black Hamburg, Muscat of Alexandria, white Frontignac, grizzly Frontignac, Syrian, white and golden Chasselas; also, President, George IV, Hill's Madeira, Freestone heath, new Royal George and Noblesse peaches; red Roman, Elruge and Broomfield nectarines; all the nectarines were very fine. From R. Ward, Roxbury, Seckel and Williams's Bon Chrétien pears, and fine peaches, and white gage plums. From D. Murphy, Roxbury, black Hamburg grapes; also, Williams's Bon Chrétien and Dearborn's seedling pears and white Magnum Bonum and Smith's Orleans plums. From J. D. W. Williams, Williams's Bon Chrétien pears. From Dr. S. A. Shurtleff, Tremont and Clingstone peaches. From J. A. Kenrick, Mogul summer and Williams's Bon Chrétien pears; also, Baldwin, Hubbardston nonsuch, Kenrick's red autumn, Fen-sapsons and pumpkin sweeting apples; rare-ripe and other peaches. From S. Phipps, Dorchester, nectarines. From Messrs. Winship, clusters of the Buffalo berry, (*Shepherdia*), and fruit of the *Passiflora edulis*.

From S. R. Johnson, white Frontignac and white Chasselas grapes, from the open garden; also, white gage plums. From James Hunnewell, Charlestown, sweet water and Isabella grapes. From Wm. Oliver, Esq., Brocas bergamotte, St. Ghislain and Seckel pears. From S. Sweetser, Mogul summer pears. From W. B. Sweet, pears, apples and plums. From A. McLennan, gardener to Wm. Pratt, fine specimens of black Hamburg grapes, and green fleshed melons. From J. Brown, Concord, purple Detroit apples. From J. Warren, Weston, American nonpareil and African apples. From A. D. Williams, Williams's early pears and Orleans apples. From J. T. Wheelright, Bon Chrétien, pound and Doyenné blanc pears; also, York russet apples and peaches. From J. Hill, West Cambridge, a variety of peaches. From J. Rayner, Esq., Boston, Doyenné blanc pears. From Dr. J. C. Howard, Sweetwater and black Hamburg grapes, from the open air. From J. Newhall, New Ipswich, N. H., ripe figs. From J. L. L. F. Warren, Seckel pears; also, Lady, Porter, golden russet, Seek-no-further, Joseph sweeting and Siberian crab apples; Royal Kensington and Warren's native peach. From Prof. J. L. Russell, high-top sweeting apples. From A. Cushing, Hingham, long stem apples. From D. Cushing, a pear from a tree a century old. From J. Deane, Mansfield,

Wine, pumpkin sweet, Seek-no-further, Hayboy, superb sweet and spice sweeting apples, (the three latter very fine;) also, peaches.

From Jos. Balch, Esq., Williams's Bon Chrétien and Cushing pears; seedling peaches, (very fine.) From J. Mackay, Weston, Seckel pears, and Pearmain, Hawthorndean, (elegant,) Williams's Favorite and Porter apples. From E. Hathorne, cream apples. From E. P. Harts-horn, Boston, sweetwater grapes.

Vegetables: From J. L. L. F. Warren, fine tomatoes and a large Savoy cabbage. From B. V. French, sugar beets and autumnal marrow squash. From Hovey & Co., Walker's long cucumber. From J. Breed, Belle Isle, Valparaiso squash, (weighing eighty pounds.) From Mrs. T. Bigelow, Medford, seven years pumpkin. From J. Gardener, turnip cabbages above ground. From J. M. Ives, Salem, autumnal marrow squashes. From C. Ford, seven years' pumpkin. From E. Vose, acorn squash. From T. Mason, Lima squashes. From H. Davidson, cucumbers. From Jona. Warren, Hercules' club gourd. From A. H. Safford, Cambridge, Valparaiso squash. From S. Pond, autumnal marrow squash.

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ART. IV. *Fulton Market, New York.*

*Vegetables:* Potatoes, per bushel: common, 31 to 50 cts; sweet, 75 cts. to \$1. Turnips, per bushel, 37½ to 50 cts. Beets: long blood, per bushel, 62 to 75 cts; turnip blood, per bunch, 3 cts. Parsnips, per bunch, 6 cts. Carrots, per bushel, 75 cts. Beans, per half peck: cranberry, 12½ cts; Limas, 15 cts. Onions, per bushel: white, 62½ cts to \$1; red, 75 cts. Radishes, per doz. bunches, 12½ cts. Leeks, per doz. bunches, 25 cts.

Cabbages, per dozen, 25 to 75 cts. Brocoli, per dozen, 50 to 75 cts. Lettuce, per dozen, 25 cts. Celery, per bunch, 12½ cts. Peppers, per hundred: squash, 50 cts; Cayenne, 15 to 25 cts. Endive, per dozen, 25 cts. Indian corn, per dozen, 12½ cts. Melongenas, each, 6 to 15 cts. Tomatoes, per half peck, 37½ cts. Gherkins, for pickling, per hundred, 15 to 25 cts. Squashes: summer bush, per dozen, 25 cts; winter crookneck, per dozen, 50 to \$1.25. Pumpkins, each, 8 to 12½ cts. Parsley, per bunch, 2 cts.

*Fruit:* apples, per barrel: common, \$1.50; fall pippins, \$2; greenings, \$2. Pears, per half peck: beurré, 25 cts; bergamotte, 25 cts; virgoulouse, \$1; Seckel, 75 cts. to \$1; Bon Chrétien, 25 to 50 cts. Peaches, per half peck: rareripes, 50 cts. to \$1; other sorts, \$1 to \$1.25. Plums, per half peck: Damsons, 37½ to 50 cts; green gages, 62½ to \$1. egg, \$1; prune, 50 cts; common, 37½ to 50 cts. Grapes, per pound: black Hamburg, black cluster and sweetwater, 31 to 50 cts. each; Isabella, 12½ cts. Muskmelons, 3 to 12½ cts. each; Watermelons, 6 to 25 cts. each. Blackberries, 19 per quart. Cranberries, per half peck, 37½ to 50 cts. Cocoanuts, each, 6 to 9 cts. Oranges and other fruits remain about the same.

REMARKS.—The market continues to be well supplied with all the necessary vegetables, which, generally, are of good quality. Potatoes have advanced a little. Cabbages have declined: brocoli is not very plentiful, nor of the best quality: Indian corn is nearly done. Fruit, with the exception of apples, is not very abundant. Peaches are enor-

mously high, and good ones are not very plentiful. Plums are not very abundant, but are generally good, and bring high prices, as do the finer sorts of pears. Of grapes the supply is moderate, but about equal to the demand, and sell at reasonable prices. Melons are good, and a fair supply. Apples are abundant and good.—*Yours, J. H., Sept. 22, 1837.*

## ART. V. Faneuil Hall Market.

		From	To			From	To
<i>Roots, Tubers, &amp;c.</i>		\$ cts.	\$ cts.	<i>Fruits.</i>		\$ cts.	\$ cts.
Potatoes, new :				Apples, dessert :			
Common, { per barrel, . . .	1 00	1 25		Common, { per barrel, . . .	1 50	2 00	
	40	50			75	1 50	
Chenangoes, { per barrel, . .	1 25	1 50		Connecticut sweets, pr bush.	1 00	1 25	
	87½	50		Pumpkin sweetings, pr bush.	1 25		
Sweet, { per bushel, . . . . .	1 25	1 50		Porters, per bushel, . . .	1 50	2 00	
	37½	50		Pears :			
Turnips, { per bushel, . . . . .	50	75		Capiaumont, per dozen, . . .	25	37½	
	20	25		Andrews, per dozen, . . .	25		
Onions :				Fulton, per half peck, . . .	37½		
red, per bunch, . . . . .	4	6		Seckel, per half peck, . . .	1 00	1 50	
white, per bushel, . . . . .	1 25	1 50		St. Michael, . . . . .	75		
Beets, new, per bushel, . . . .	75			Bartlett, per dozen, . . . . .	25		
Carrots, per bushel, . . . . .	50	75		Plums, per quart :			
Horseradish, per pound, . . . .	12			Damsons, . . . . .	20	25	
Shallots, per pound, . . . . .	20			Common, . . . . .	17		
Garlic, per pound, . . . . .	14			Large black, . . . . .	25		
<i>Cabbages, Salads, &amp;c.</i>				Peaches, { per dozen, . . . . .	25	50	
Cabbages, per dozen :					37½	75	
Early, . . . . .	37½	50		Watermelons, each, . . . . .	12½	25	
Savoy, . . . . .	50	75		Muskmelons, each, . . . . .	12½	25	
Cauliflowers, each, . . . . .	12½	25		Citron melons, for preserves, ea.	8	12½	
Brocolis, each, . . . . .	12½	25		Barberries, per bushel, . . . .	50	75	
Lettuce, per head, . . . . .	3	4		Pine-apples, each, . . . . .	12½	25	
Beans, shelled, per quart :				Grapes, (hot-house) per pound :			
Common, . . . . .	10	12		Black Hamburg, . . . . .	50	75	
Lima, . . . . .	25			White Chasselas, . . . . .	37½	50	
Sieva, . . . . .	25			Isabellas, . . . . .	12½		
Green corn, per dozen :				Cucumbers, per dozen, . . . . .	6	8	
Sweet, . . . . .	12½			Cranberries, { per bushel, . . .	1 50	1 75	
Celery, per root, . . . . .	8	12½			37½	50	
Peppers, per pound, . . . . .	4	5		Oranges, { per box, . . . . .	2 50	3 00	
Cucumbers for pickling, hun'd	20	25			25	50	
Tomatoes, per half peck, . . .	12½	25		Lemons, { per box, . . . . .	2 00	2 50	
					25	37½	
<i>Squashes and Pumpkins.</i>				Cocoanuts, each, . . . . .	6	8	
Squashes, per pound :				Shaddocks, each, . . . . .	25		
Autumnal marrow, . . . . .	2			Walnuts, { per barrel, . . . . .	4 00	4 50	
Lima, . . . . .	2	8			2 25	2 50	
Winter crookneck, . . . . .	1½	2		Almonds, (sweet,) per pound, .	12	14	
Pumpkins, each, . . . . .	12½	20		Filberts, per pound, . . . . .	4	6	
				Castana, . . . . .	8	6	

REMARKS.—The weather during the present month, up to this date, has been cool: no rain has fallen, and, with the previous dry state of



the soil, the ground is much dryer than we have known it any previous autumn, for some years. It is nearly two months since any rain fell which did any good to the earth; consequently some crops have suffered, though generally, we believe, they have not been injured; corn, beans, squashes, &c., have ripened much better than if the ground had been saturated with wet, and the plants kept in a more active state of vegetation. Late crops of potatoes have probably suffered the most: turnips planted late will not be of very large size. In the country and vicinity grass feed is remarkably short—in some light soils completely dried up. Light frosts have been experienced in some cold localities, but we believe have not done much injury.

Potatoes come in rather slower than usual at this season, undoubtedly from the cause above mentioned; prices have, however, fallen since our last: large shipments have been made for the Southern market: sweet come to hand in tolerable quantities, and very good. Beets and carrots are abundant and very fine. Horseradish begins to come in. Cabbages, of the earlier kinds, are plenty, but Drumheads have not yet been received: the appearance now is that they will not be so large as usual. Cauliflowers and brocolis come to hand in quantities to supply all demand; some of the latter were the finest we have ever seen, weighing from four to six pounds each. Lima and sieva beans are very scarce. Celery comes in now of excellent quality. Peppers rather scarce and prices higher, as are also cucumbers for pickling. Squashes of all sorts are abundant: the autumnal marrows are now to be found in the market; this is a superb squash: Limas are also very good this year.

Fruit is generally plentiful; Porter apples are exceedingly beautiful this year: common sorts are abundant. Pears were never so abundant, nor the market supplied with such fine varieties—beautiful Capiaumonts, (so called,) Andrews, Fultons, &c.; these sorts, two years since, could only be bought by the dozen—they are now to be had in almost any quantity. Plums, of some kinds, are yet to be had. Peaches raised in the vicinity of Boston, have been received, though not in very large quantities, but they have been very fine: New York peaches also come to hand. Watermelons scarce and poor. Pine-apples scarce. Grapes quite abundant; Isabellas not quite ripe. Cranberries are received in abundance, and considerable quantities have been shipped already.—*Yours, M. T., Boston, Sept. 22, 1837.*

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## HORTICULTURAL MEMORANDA

FOR OCTOBER.

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### FRUIT DEPARTMENT.

*Grape vines*, in the green-house or grapery, will now continue to need some attention: as soon as all the fruit is cut, the main shoots for producing fruit the next season should be pruned of all laterals, so as to leave straight smooth canes, unless the object is to train them on the spur system. All dead, yellow or half dried leaves should be picked from the plants, and the shoots tied in, at a good distance from each other, that they may have all the benefit of the sun and air, to ripen well. *Isabella vines*, in the open air, may be divested of some of their

leaves, so that the sun's rays may ripen their fruit. Prune the vines, now, of the superfluous wood.

*Fruit trees* may be transplanted with safety this month.

*Raspberry vines, gooseberry and currant bushes,* may be also transplanted with safety.

*Strawberry plants,* for forcing, may be repotted, if in too small pots.

#### FLOWER DEPARTMENT.

*Dahlias:* as soon as the frost has destroyed the dahlias, a little earth should be drawn over the crowns of the roots. The tops should not be cut off, as it has a tendency to make the roots start afresh. If severe frosts occur towards the latter part of the month, the roots should be taken up.

*Hyacinths* may be planted this month; though early in November is a preferable time.

*Tulips* may be planted from the first of this month to the end of November.

*Roses,* not repotted before, may be shifted now.

*Cactus cuttings* may be now put in with success.

*Lilies* may now be planted with success.

*Paonies:* no better time could be chosen to separate and remove these plants.

*Perennial plants* may be removed with safety.

*Oxalis:* the fall flowering kinds should be immediately potted: winter blooming sorts may be also potted.

*Gladioluses, ixias, sparaxis, &c.* may now be potted and placed in a frame.

*Mignonette,* in pots, should be carefully watered.

*Stocks,* planted in August, should be placed in a frame, where they may be protected through the winter.

*Schizanthuses,* sown in August, and potted into thumb pots in September, may be repotted this month.

*Geraniums* may be propagated with success in a green-house or parlor.

*Ericas* may be repotted now, if they require it: pot off cuttings that are rooted.

*Camellias:* all the plants should, on their removal to the green-house, have a top-dressing with proper soil, with the addition of more sand than usual. Wash and syringe the plants, and clear them from all insects. If any plants want repotting, it may now be done.

*Erythrina Crista-galli:* plants which flowered in September should be cut down, and kept dry till November; if then repotted and put in a stove they will bloom again.

*Azalea cuttings,* put in in June, may now be potted off.

*Seeds of rocket larkspurs, Chryseis crocea, coreopsis,* and other hardy annuals, should be sown in patches or beds the latter part of the month; the plants will bloom earlier and finer than if sown in the spring.

*All plants* intended for the green-house should be removed into it this month. Let it be well cleaned and all insects destroyed before they are put in. Water carefully at this season.

# THE MAGAZINE OF HORTICULTURE.

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NOVEMBER, 1837.

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## ORIGINAL COMMUNICATIONS.

ART. I. *Establissement Geographique de Bruxelles, fondé en 1836. Par J. F. Vandermaelen. By X.*

A PAMPHLET has lately fallen into our hands, purporting to be a view of an establishment in Belgium, dedicated to the various branches of natural history. Corresponding to the extent and grandeur of the other departments of the study of nature, the green-house, conservatory, stove and botanic garden have received due consideration. We quote from a description of the same.

*Green-house.*—In the first section was a magnificent collection of three hundred varieties of *Caméllia*, among which were some recently obtained, and of very great value. The collection of pelargoniums, above five hundred in number, comprising the distinct species, with varieties and hybrids, is, without dispute, one of the most beautiful and complete in the country. Four hundred varieties of Bengal roses, of great luxuriance; other collections, not less important, among which we mention *Rhododéndron arbóreum*, of which we counted seventeen new varieties raised from seed, grown in Belgium, and which flowered for the first time in the beginning of the year 1835, of such beauty that M. Vandermaelen intends to publish them, with plates. A plant of *Araucária excélsa*, of great height, *Araucária brasiliénsis*, *Melaleuca*, *Eucalyptus*, *Metrosidéros*, *Bánksia*, and a group of other plants, of great interest and of very great height, produced a magnificent effect in winter, in this compartment.

Contiguous is a large stove, in the borders of which were *Caryôta úrens*, *Chamærops palmàta* [?], *hùmilis* and other species; *Phœnix dactylifera*, *Arèca rubra*, *Zàmia lanuginòsa*, *Sác-*

charum officinarum, three species of *Musa*, *Coccóloba microstachya*, pubescens, punctata, uvifera, excoriata, two *Lantana rubra*, one of which was very large, several plants of *Lantana chinensis*; *Ardisia paniculata*; *Urânia speciosa*; *Calamus niger*; *Chamaerops flexilis*, some new arums, superb specimens of *Ixora*; *Pothos cordata*; *Bromelia Karatas*, with fruit more than eight inches diameter, several plants of *Pandanus odoratissima*, two of great size; twenty or more of the *Zamia*, of which *Z. horrida* was four feet high and thirty nine-inches circumference; nearly all the species of *Strelitzia* and one very large specimen of *S. juncæ*; *Crœton pictus*, discolor, &c; *Passiflora alata*, princeps, glauca, &c. &c. *Dracæna brasiliensis*, picta, terminalis, paniculata, draco, the latter above twelve feet high, and which, in 1834, produced a panicle four feet long, with several fertile flowers and a great quantity of seed; *Cocos nucifera*, *Elæte sylvestris*; *Thrinax parviflora*; *Coffea arabica*, *Euphorbia latifolia*; several very large plants of *Crinum amabile*; *Crinum scabrum*, Broussoneti, and a great many new and rare ones, sent from Brazil, by M. Crabbe, in 1834; *Myrtus Pimentæ*, *Alétris fragrans*, *Phyllanthus grandiflorus*; *Ficus citrifolia*, elastica, populifolia, &c., *Tamus*, species unknown, of enormous dimensions, from Mexico; *Cycas revoluta*, two specimens, very large; a variety of *Astrapæa Wallichii*, with white flowers, from twelve to fifteen feet high; *Astrapæa pubescens*; *Cycas circinalis*; two *Cactus [Cereus] speciosissimus*, one of which, in 1835, produced seventy or eighty flowers; a collection of sixty species and varieties of *Amaryllis*, *Littæa geminiflora*, which flowered in 1834, having a stem twelve feet long, and covered with more than twelve hundred flowers; an unknown species of *Ardisia*, from Brazil; *Dillenia speciosa*; the different species of *Mimosa* and of *Theophrasta*; a great number of other splendid plants, besides a large shrub, in appearance belonging to the *Malvaceæ* or to some kindred family, raised from seed brought from Brazil in 1814 or 1815.

A small stove also contains a multitude of rare plants: especially would we mention a numerous collection of the *Orchidaceæ*, which on flowering exhibited several new species, and in some instances new genera, from the latter of which M. Dumortier has established *Maelenia paradoxica*, a merited tribute to the zeal of the proprietor of these gardens.

The collection of succulent plants in this stove contributes in no small degree to its value. The *Cacti* are not less than three hundred. The *Cereus* are scarcely less numerous; among these, several *C. senilis* of great rareness; an hybrid *Epiphyllum*, obtained, by M. Vandermaelen, from the fecundation of *Cereus speciosissimus* with the pollen of *Epiphyllum Ackermanni*; *Mes-*

sembryanthemum, *Opuntia*, *Euphorbia*, *Stapelia*, *Aloe*, &c. &c. complete this rich collection.

We were particularly struck with a very large *Strelitzia reginæ* which was in flower in the same house; with two individuals of *S. spathulata*, one of *S. augusta*, and an *S. humilis*; several *crinums*; eight species of *Zamia*; *Arëca borbónica*; *Pandanus Amersii*, very rare; *Bonapartea gracilis*; a species of *Tillandsia*, which flowered for the first time in 1835; *Tamus elephántipes*, twenty-five inches in diameter; *Phœnix paludosa*; several *Calánthe*, sp., received directly from China, in 1834, and *Clerodendron* of great variety.

We principally noticed, in the small green-house, twenty species of the genus *Mimosa*, eight of genus *Protea*, three of genus *Banksia*, ten of genus *Hakea*, eleven of genus *Dryandra*, twelve of genus *Diosma*; seven of *Melaleuca*; nine of *Metrosideros*; three of *Epimedium* from Japan.

The entire collection under glass embraces about fifteen thousand plants.

The garden is not less rich in rare acclimated plants and in foreign trees and shrubs. We noticed a superb lot of pæonies, of which more than two hundred seedlings had not even flowered; a great number of *Rhododendron*, *Azalea* and *Magnolia*, forming dense thickets, covered, during the summer, with a profusion of flowers; *Kalmia*, *Lonicera*, *Andromeda*, many species of *Æsculus*, twenty-eight species of *Phlox*, eighty-eight of *A'ster*, twenty-five of *Saxifraga*, twenty-five of *Sedum*, &c. &c., with many varieties of dahlias, spiræas, campanulus, irises, chelones, veronicas; valerianas, Querci of the United States, twenty-four species of *Fraxinus*, great number of *Catalpa*, *Liriodendron*, *Pyrus japonica*, and a multitude of others too numerous for detail.

M. F. Vandermaelen has not confined himself to fastidious decoration, but aims to form a garden for the naturalization of plants and of botany, and which should be entirely devoted to the study of that delightful science; the plants are arranged in a picturesque manner, after the sexual system of Linnæus. An aquarium in the garden is intended for aquatic plants, and a place has been reserved for an arrangement of plants by natural families. The founder of this school of botany has engaged a learned professor, M. Scheidweiler, who gives, twice a week, gratuitous lectures in botany and vegetable physiology.

## X.

The above account has been furnished us by a correspondent. It will be read with great interest. Probably M. Vandermaelen's establishment is one of the most extensive in Belgium. It will be seen in a future page that he gained several of the principal prizes at the late celebrated display of flowers at Ghent.—*Cond.*

ART. II. *On the Cultivation of Hyacinths.*  
By the CONDUCTOR.

IN a previous article (vol. I, p. 418,) we have given a few hints upon the proper management of hyacinths in pots and glasses. Our present purpose is, to offer a few brief observations upon their cultivation in beds in the open garden.

Hyacinths are so beautiful a flower, and so exquisitely odorous, that there is no necessity of here urging their great claims upon the care of the amateur gardener. The Dutch are deservedly notorious for their fine collections: they have been cultivated by them for an immense length of time, and are still held in very high estimation. In some towns and cities of Holland thousands of bulbs are annually sold, and numerous quantities annually exported to various parts of the world. It is the great mart from whence all, or a greater part, that are cultivated, are procured. The Dutch are, we believe, the only persons who have ever attempted the raising of new varieties in any great number; their catalogues now contain some hundred different sorts, and new ones are continually being produced.

In their cultivation the Dutch greatly excel; and it has been stated that bulbs could not be grown equal in size to theirs, even among the most skilful of the British florists. That their climate and soil is well adapted to their cultivation is well known; but that they cannot be grown with as good success, either in this country or in England, is a fallacious idea. We have ourselves grown as good hyacinth roots as we ever saw imported from Holland, and the Hon. and Rev. Wm. Herbert, in a paper in the *Horticultural Transactions*, states that he has raised those equal, if not superior, and adds "that, with care, he is convinced that the London nurserymen, who will take the trouble, can produce hyacinth bulbs equal if not superior to the Dutch." But the remark that the bulbs cannot be grown to any perfection, only by the Dutch florists, has been so generally believed as being founded on experience, that few have ever attempted their cultivation; this, together with the certainty of always procuring good bulbs from the seedsmen, at reasonable prices, has prevented gardeners from relying upon their own product for an annual supply.

The Dutch have published various works upon the cultivation of the hyacinth, and other bulbs; but the most celebrated of them is that of St. Simon, which appeared in 1768, entitled *Des Jacintes*. In this work full directions are given for their management: from it we learn that the soil best adapted to their growth is composed of rotten cow-dung, decayed leaves and fine sand. In procuring the leaves preference is given to the softer

kinds, as those of the lime, elm and birch, rejecting those of the oak, chesnut, and similar kinds, as requiring a greater length of time in their decomposition. The cow-dung is also of a peculiar kind, it being collected in the winter season, when the cattle are stall-fed upon dry food, and free from straw or litter. The best sand is procured by digging to a considerable depth. That which the florists use around Haarlem, where the most celebrated growers reside, is procured from a place where the soil is a deposit of sea sand upon a layer of hard undecayed timber, the remains of an ancient forest overwhelmed by the sea.

When the leaves are collected together, they are thrown into a large heap, in a situation not too much exposed to the sun, nor where there is likely to be a stagnation of water, which is always carefully drained off. After having lain together for a considerable period, and the whole mass becomes considerably decayed, they are ready to be mixed up with the sand and cow-dung; this is done by the Dutch florists in the following manner: first, by placing a layer of sand; then a layer of well decomposed cow-dung, and, lastly, a layer of the rotted leaves, each layer being about ten inches thick. In this manner a large heap is made, finishing the top with a layer of the cow-dung, upon which is placed a small quantity of sand, to prevent the action of the sun upon it. The compost thus remains for six months or more, when, after being thrown over once or twice, it is ready for the formation of the beds for the bulbs. The Dutch florists use this compost indiscriminately for all sorts of bulbs: the first season after the beds are made of this compost, they plant them with tulips, crocuses, and other bulbs, as the fresh soil might canker and otherwise injure the hyacinths; and the florists avoid planting them in the same place two years in succession; in the alternate years the beds are filled with tulips, crocuses, jonquils, &c. &c. This compost is generally supposed to retain its qualities six or seven years, when it is renewed.

In the cultivation of the hyacinth we have been very successful, though we have never been governed by any particular rules in the formation of our compost: we have generally taken such soils as would come nearest to the one mentioned above, although we have never been at the same pains to procure each material. Perhaps our bulbs would have flourished better had they been grown in a compost like that of the Dutch florists; but as they were as fine as any we have ever seen, without farther alluding to their particular soil, we shall give the result of our own observations and experience.

Hyacinths delight in a very sandy compost: Mr. Knight states, in the *Gardener's Magazine*, that the finest hyacinths in Haarlem are grown in a soil so light that "it can be blown away by the

wind." We have always found them to grow more luxuriantly, and the bulbs to be more free from canker, in a compost of which sand is a component part. In heavy soils they soon run out.

The compost we have grown our hyacinths in was composed of one sixth good garden soil, rather sandy; one sixth decayed cow-dung; one third leaves, and about one third fine sand; choosing part sea sand, in preference to all common pit sand. These were mixed together a few weeks before the beds were made, and, about a fortnight previous to planting, the beds were filled with it, leaving time for it to settle. Previous to making the beds of the compost the old soil should be removed to the depth of twenty or twenty-four inches. The situation should be rather elevated, with a moderately dry sub-soil, or our severe winters would be apt to destroy the bulbs. Some writers have recommended the beds to be made three feet deep; but twenty-four inches, in our opinion, is sufficiently deep. When the compost has become tolerably well settled the planting of the bulbs should commence: this is generally done from the 1st to the 10th of November; either sooner or later will do, but this is the most preferable time—planted earlier, the bulbs are apt to get saturated with water before they commence growing; and if kept out of the soil later, they are apt to be injured, by the starting of the young fibres. The beds should be raised six or eight inches above the walk, and may be of any width or length, to suit the convenience of the planter. The bulbs should be set about eight inches apart each way.

Planting should never be performed with a dibble, (or pressed into the soil,) as recommended by many eminent English florists; indeed no kind of bulb should be planted in this manner. Hyacinths require to be set out four inches deep from the top of the bulb, and the best mode is to take off about five inches of the soil from the surface of the bed, after it has been raked level. Then mark out the rows, and carefully plant the bulbs, and replace the soil previously taken off. Around and under each bulb a handful of sand should be placed, in order to let the water pass off freely from the coating of the bulbs. Rake the bed smooth, leaving the centre about one inch the highest, so as to throw off the superfluous water. Nothing more remains to be done until the approach of cold weather: immediately after planting, the beds should not be exposed to heavy rains.

Hyacinths are nearly hardy, and we have had them live through the winter without any protection whatever; but they were injured in their growth, and the flowers were not equal to those protected. The Dutch florists cover their beds with tan or coarse manure. They generally allow the frost to penetrate into the beds about three inches, and then cover them; this prevents the bulbs from starting in the spring, and throwing up their flow-



er spikes too early, as they frequently do, before the season has become sufficiently moderate to prevent their being damaged by early frosts. We have seen our hyacinth beds, when in full bloom, covered with snow an inch deep; and one year the weather was so severe that the flower spikes were frozen so hard that not a single bell could have been touched without its breaking off; the bulbs, however, did not appear to have suffered, and the flowers remained in beauty some time after. It is therefore necessary, particularly in our climate, to let the frost penetrate nearly to the bulbs before the beds are covered. In the spring the covering should not be removed until the shoots have protruded through the surface of the bed, (which may be easily discovered,) in which case it will be necessary to take it off. It should not be carried away, but laid by the bed, so that it may again be thrown over, if the weather should be severe.

When the shoots have advanced an inch or two above the surface, the soil between the rows should be stirred very carefully with a small trowel. During winter it becomes hard, and this operation is very beneficial to the bulbs. When the flower buds begin to expand the spikes should be tied to small sticks, neatly painted green, so as to prevent the winds and heavy rains which often occur at this season from beating them down to the ground. If there is any danger of frost, the bed or beds, if not large, may be easily covered with mats, by erecting a slight frame. If the beds are large, then a little hay or straw lightly strewn over them will prevent the frost, unless remarkably severe, from injuring the buds. When in full flower the beds may be kept in beauty a great length of time, by erecting an awning over them; this, besides serving to preserve the bloom, will also shelter them from high winds and severe rains.

When the blossoms have faded the flower spikes should be cut off; and as soon as the leaves assume a yellow tinge, (which is generally about the middle of June,) the bulbs should be taken up, and the decayed foliage cut off to within two or three inches of the top: they should then be laid upon their sides, in the same bed, with their tops towards the north, and should be covered with an inch or two of very dry soil, or sand, and remain in this situation about three weeks, during which time they should not be exposed to heavy rains, or very hot sunshine; in either case, mats, or a covering of some kind, should be thrown over, or the bulbs will be liable to injury: at the expiration of this period they may be taken up and very carefully cleared from all loose fibres, and put up in papers and laid away in a dry room. In Holland the commercial gardeners have houses erected on purpose to store their bulbs.

The offsets are managed in the same manner as the old bulbs, with the exception that they should be set out rather earlier, and

only about half the depth (two inches,) of the old roots. The beds should be well covered and the bulbs taken up, as has been recommended for the old roots. Offsets generally flower weakly the second year, the third year considerably stronger; and the fourth year the largest of them may be planted out in the beds with the strong flowering bulbs.

Hyacinths may be easily raised from seeds, but this mode has been very rarely resorted to, except in Holland. The process is so tedious, and the procuring of a very superior variety so uncertain, that it will not probably be attempted in this country. Those florists, however, who have an abundance of patience, may be, perhaps, induced to try the experiment; and for their information we offer a few remarks on the best mode of proceeding.

Double flowers rarely produce seed; but from the single ones plenty may be gathered. In selecting the seeds choose those which are produced on superior varieties, possessing all the requisite properties, viz: strong straight stems, fine formed pyramids of bells, vivid, or delicate colors, as either are desired, and if the flowers incline to be semi-double, so much the greater chance of procuring full double ones. It should not be gathered until perfectly ripe, when the seeds are very black; let them remain in the capsules till the time of sowing, which in our climate would probably be in a frame in February or March. Deep boxes should be filled with the same compost before recommended. When the young plants appear the boxes may be plunged in the open garden, where they may remain for two years, only protecting the bulbs in the winter season. The third year they should be taken up, as has been directed for the old roots, and in the fall they may be planted out in a bed by themselves. A few flowers will appear the fourth year, but the greater part will not bloom until the fifth, and some not till the sixth. If one in five hundred proves to be worth naming, or equal to the already existing varieties, the grower may consider himself very fortunate.

Hyacinths are subject to various diseases, and sometimes great numbers of bulbs are lost in a season; the most serious disease is that called by florists the ring-sickness: when a bulb is once affected it can only be got rid of by cutting out the diseased part: if on doing this the heart of the bulb is destroyed, it will still grow and send out offsets, but will never recover itself again so as to produce bloom. When the affected part is cut away, the wound should be exposed to the sun until it is quite dry, after which it would be best to plant it out in a dry situation, in a compost more sandy than that recommended for healthy roots. The decay of the bulbs is attributed to several causes; but probably the principal one is the use of improper soils, es-

pecially manures. The cow manure which the Dutch florists use is perfectly free from straw, as previously stated; for when fermentation takes place, as it generally does when there is much mixed with the manure, the bulbs are almost certain to decay; the cause is supposed to be a fungus, the spawn of which is in the dung. With all the care, however, which the Dutch take to prevent this disease, they are much troubled with it. Whenever the bulbs show any signs of decay, while they are out of the ground, the diseased part should be immediately cut away.

We hope to see the hyacinth more extensively cultivated in beds; hitherto it has only been considered a parlor plant, suitable for glasses and pots. Certainly, if early blooming, beautiful flowers, elegant colors and grateful odor, are desirable requisites in a flower, to what one shall we look which possesses them in a more eminent degree? Beds of them only require to be seen to attract the attention of all florists or amateur gardeners. One filled with the most superior varieties will not suffer in general comparison, (though their beauty is of a different kind,) with one filled with the most brilliant tulips. If a fear that the bulbs would run out by cultivation, rather than increase in vigor, has deterred the lover of the hyacinth from entering into their growth, let it do so no longer. Do not the English gardeners excel the Dutch in every department of horticulture and floriculture, unless it is in the growth of hyacinths, narcissus, and a few similar bulbs? And could they not also excel in the growth of these if they were to attempt it? We have no doubt of it. And so may our gardeners and amateurs, if they choose, produce bulbs equal if not superior to the Dutch. Were it not for the sale of the abundance of miserable roots which are annually sent here from Holland, and put up at auction, and the very limited demand for fine and valuable varieties, our nurserymen could, and might be induced to, furnish the bulbs at as reasonable a rate as they could be imported. We hope the attempt will be made: we believe it would prove a profitable business to any one who understands their cultivation, for the investment of a small capital. Hyacinths, tulips, crocuses, &c., could be as well supplied, of our own growth, as lilies and similar bulbs are at the present time.

For a list of varieties for a small garden we refer the reader to vol. I, p. 420. Where a large bed is to be set out, a great number of superb varieties may be procured of the seedsmen. Those procured at auction are always sure to cause disappointment: in truth they have done more to prejudice amateurs and others against their cultivation than any thing else.

We have extended our observations to a greater length than we had intended. But if they have the effect to increase the cultivation of this beautiful and fragrant flower in our gardens, we shall feel amply repaid for our trouble.

ART. III. *Notice of some rare and beautiful Plants found in Hubbardston, Mass., during the months of May, June, July and August, 1837.* By JOHN LEWIS RUSSELL, Prof. Bot. and Veg. Physiol. to the Mass. Hort. Soc.

THERE is scarcely a subject connected with vegetation so interesting as the local and geographical distribution of plants, whether considered in relation to a wider or more limited field of observation. The distance of a few miles, or the difference of soil, will produce an astonishing effect. A very limited area will comprise the entire amount of a species to be found in a county or section. Nor does there seem any particular reason existent why such should be the case. The collector is oftentimes agreeably surprised by the occurrence of a single individual of exceeding rarity, or by the discovery of some oasis of great interest, amid the long and patiently investigated track of his former labors. A little group of such favorites will continue to thrive in their loneliness for years, unvisited, perhaps, by any but himself, and then suddenly disappear, to give way to others more congenial to the spot. Others will be found in luxuriant abundance in localities far remote from the scene of their first observation; and others, again, following man, like some of the higher orders of animated creation, hover with a seeming instinctive association around the scene of his enterprise, under every change and circumstance. Nor can any, unexperienced in these pursuits, conceive the actual degree of interest and pleasure which is awakened by the occasional occurrence of some gorgeous display or elegant appearance of a group of a rare plant, when it bursts upon the view, for the first time, in all its native character. Unlike other objects, in the economy of life, which become uninteresting when they become common, these are raised in our estimation. To see, under these circumstances, the choicest productions of our gardens, in all their native and unrestrained luxuriance—while it heightens their effect, as individuals of the great order of the vegetable world, detracts, in no single degree, from their more humble merits when seen under the fostering care of the skilful florist. We should prize a feathery palm none the less, when under the sheltering roof of the conservatory, in solitary beauty and sterility, as a specimen, and as an individual, because it reminds of those gigantic, towering, and wide-spreading forests of oriental climes, where these “princes of the vegetable world” thrive in their native glory.

During a short residence in the vicinity of Wachusett Mountain I made careful observation of the flora of the immediate region. I was fortunate in meeting with a friend and lover of science, in coöperation with whom I collected many plants, some

of which are rare in the neighborhood of Boston. Desirous of promoting the interest of this Magazine, I submit to its readers a list of them, with a few observations on their introduction in gardens as ornamental plants.

The town of Hubbardston belongs to Worcester County, and is distant fifty-three miles west of Boston, and seven from Mount Adams, or Wachusett. This fine elevation rises as from a high plain, and stands, with its accompanying spurs, in almost solitary beauty. At its base is Princeton, so celebrated for its peculiar and interesting scenery. On the very summit of this hill I observed *Rhododéndron nudiflorum Torrey* (*Azàlea nudiflora L.*) of large size, and *Potentilla tridentata*, in profusion. Between the crevices of the horizontal and oblique slabs of granite, the little and delicate *Woodsia rufidula Beck* may be found. The scarlet berries of *Córnus canadensis* produced a pleasing effect. Profusion of the blueberry covered the ground.

*May 15.*—The woods are now full of *Trillium pictum Pursh*. This elegant plant may be collected in abundance during the month of May, at which time, in company with the large showy cymes of *Vibúrnum lantanoïdes Mich.*, it renders conspicuous the dark, damp shades of the forest. No trillium which I have seen will compare with the elegance of the flowers of this particular species. Its petals are of a pure white, veined with rich purple. As garden plants, and for the border, all the species of this genus should be introduced, as spring ornaments. They are of easy culture, requiring only to be planted in groups, with a strong stick or tally to designate the spot, after the leaves have faded. I have had the fine *T. grandiflorum Salisb.* in flower, under cultivation, for several successive seasons; and the variety of colors displayed, not only in the flowers, but in the foliage and fruit of the nine or ten American species, recommend the entire genus to the florist.

*May 24.*—*Polygala pauciflora Willd.*, in great abundance covering the pastures. This little plant exhibits in great beauty the peculiarity of the individuals of the genus, in its subterraneous and apetalous flowers. I know not whether it could be introduced into culture with much success, but it is worthy of trial. Perhaps it would thrive on an elevated rockwork, which it would greatly ornament with its dark and rich purple, crested flowers.

*Eriophorum vaginatum L.*, in a sphagnous swamp, south-east of Parker's Pond. This is a beautiful plant, growing in cæspitose tufts, with a slender stem, furnished with a dark-tipped sheath about the middle of the culm.

*Xylósteum ciliatum.*

*May 26.*—*Stréptopus róseus*. I beg leave to recommend this plant to florists, on account of its elegant scarlet berries, ax-

illary, on a slender peduncle, from each leaf. The entire form of the plant is exceedingly graceful.

The time of flowering was not noted in the following:—

*Aràlia hispida*, abundant.

*Actæa álba*.

*rúbra*.

*Ranúnculus Clintónii* Beck. syn. *R. prostrátus Lamarck*, in a small spot with *Glechóma hederácea*, western part of the town. Both introduced(?).

*Ribes glandulósum* *Ait.*

*Dalibárda repens*, common.

*Rósa rubiginósa*.

*Cérasus boreális*. Summit and sides of Wachusett.

*Vicia sátiva*.

*Salix tristis* *Muhl.*, a pretty species when in flower.

*Viola clandestina* *Ph.*, a curious species, with very succulent leaves.

*Arbutus Uva úrsi*, rare.

*Epigæa repens*, abundant.

*Gualthéria hispídula* *Muhl.*

*Pyròla rotundifolia*

*asarifolia* *Michx.*

*elliptica* *Nutt.*

*secúnda* *L.*

} growing in one locality.

*Chimáphila umbellàta* *L.*

*Linnaea boreális*.—I met with a patch of this charming plant, several rods square, forming a complete and unique covering to the ground. I do not perceive that any peculiar locality or situation is more or less favorable, having found it in vigorous growth by the sunny road-sides, and also in the shady, dark and moist recesses of the woods.

*Sambucus pùbens* *Michx.*

*Kálmia gláuca*. Sphagnous swamp, near Parker's Pond.

*Lèdum latifolium*, common.

*Sagittària sagittifolia* c. *gracilis*.

*Corallorrhiza odontorrhiza*. Abundant.

*multiflora*, rare.

*Goodyera repens*.

*Habenària fimbriàta*.

*herbiola*, Wachusett.

*Platanthèra orbiculàta*. Common; especially worthy of cultivation, on account of its large orbicular leaves, and tall stem of white and greenish flowers, constituting one of the finest of our orchidæ.

*Convallària umbellàta* *Michx.* Syn. *Dracæna boreális* *L.*

*Adiántum pedátum*. A fine fern, and conspicuously beautiful in large clumps, under the shade of trees, or in cool situations. It

seems remarkable that so little attention has been paid to the introduction of the ferns, especially in gardens which are furnished with belts of trees. They are of peculiar beauty and easy culture, and serve to give variety to those borders in every garden where most plants will not thrive. Our indigenous ferns are worthy of attention in this capacity, whether we consider the miniature arborescent appearance of *Pteris aquilina*, the delicate beauty of *Dicksonia pilosiuscula*, the stiff pinnæ of *Osmunda cinnamomea*, or the pretty ebony stripe of *Asplenium melanocaulon*. Whoever has taken cognizance of these curious vegetables in their native localities, must have been struck with their elegance.

J. L. R.

**ART. IV.** *Notices of new and beautiful Plants figured in the London Floricultural and Botanical Magazines; with some Account of those which it would be desirable to introduce into our Gardens.*

*Edwards's Botanical Register*, or Ornamental Flower Garden and Shrubbery. Each number containing eight figures of Plants and Shrubs. In monthly numbers; 4s. colored, 3s. plain. Edited by John Lindley, Ph. D., F. R. S., L. S., and G. S. Professor of Botany in the University of London.

*Curtis's Botanical Magazine*, or Flower Garden Displayed, containing eight plates. In monthly numbers; 3s. 6d. colored, 3s. plain. Edited by Sir W. J. Hooker, L.L. D., F. R. A., and L. S., Regius Professor of Botany in the University of Glasgow.

*Paxton's Magazine of Botany*, and Register of Flowering Plants. Each number containing four colored plates. In monthly numbers; 2s. 6d. each.

*The Horticultural Journal*, *Florist's Register*, and *Royal Ladies' Magazine*. Dedicated to the Queen, Patroness, the Rt. Hon. the Earl of Errol, President, and the Vice Presidents of the Metropolitan Society of Florists and Amateurs. In monthly 8vo numbers, with a plate; 1s. each.

## DICOTYLEDONOUS, POLYPETALOUS, PLANTS.

### *Ranunculidææ.*

#### CLEMATIS

*Sieboldi Siebold* Dr. Siebold's Clematis. A climbing green-house shrub; growing from

eight to twenty feet high; with white and purple flowers; appearing in the summer; increased by layers and by seeds; cultivated in light loamy soil; a native of Japan. *Pax. Mag. Bot.*, Vol. IV, p. 147.

This is the species referred to in our notice of the *C. cærulea*, p. 297, as the one in the possession of Messrs. Lowe & Co., called *bicolor* or *Sieboldi*; it is a very showy species. The flowers are quite large, in expansion four inches, the sepals, or petals, as they are generally termed, of a greenish-white, and the centre filled with numerous purple stamens, which give them a resemblance to the anemone. The plant grows freely, and the flowers are produced in abundance. The leaves are ternate, lobed and dark green, forming a fine back-ground, upon which the greenish-white flowers present a striking appearance. It will be a fine addition to this extensive genus, and add another to the rather limited number of elegant green-house climbers.

The drawing was made from a specimen obtained from a plant which flowered in the nursery of Messrs. Whitley & Osbornes, Fulham, in June. It grows in light loamy soil, and is increased by layers or seeds. (*Pax. Mag. Bot.*, Aug.)

#### *Ternströmiaceæ.*

##### CAMELLIA

*japonica* var. *tricolor*.

We noticed this variety at p. 369, and there stated that we did not know its origin, but supposed it to have been imported from China. We have since seen it stated in the *Horticultural Journal* that it was introduced, together with the *C. j.* var. *Donckelaëri* and *Sieboldi*, from Japan, by Dr. Siebold.

*Camellia japonica* var. *Donckelaëri* (noticed in our II, p. 293,) is figured in the *Horticultural Journal* for March, from which we extract the following:—"The figure of this beautiful variety of the camellia was taken from the plant from which Miss Drake took the drawing for Dr. Lindley, and we desire nothing better than a chance of coming side by side with any existing work in the representation of a subject. *Donckelaëri* is a variety hitherto, in this country, only *semi-double*, but we have little doubt it will, when well grown, be as full as the double stripe. The specimen from which our figure was taken was in the possession of Mr. Lowe of the Clapton nursery, and was imported by him, with a limited stock of small plants; but, from the figures which have appeared in Smith's *Florist Magazine*, and in the *Botanical Register*, no one will be able to recognise it; there can, however, be no doubt of its great superiority as a variety, not less for its brilliant and beautiful color than from the singular mottling, which, though varied in the flowers, always exhibits peculiar abrupt terminations of color, and the clearness of the white. Our drawing is by Mr. Wakeling, who took it on the same day that it was figured by Miss Drake."

Both drawings are beautiful, though that in the *Horticultural*



*Journal* is by far the most perfect, as it displays the abrupt terminations of color in the mottling, for which the variety is remarkable. It is quite different from any other variety, and should be in every fine collection.

A splendid display of camellias was made at the great exhibition of flowers at Ghent, (some account of which will be found in another page,) in March last. Among them we notice the following names, which are probably very new varieties:—*C. j. striata*, *triumphans*, *admirabilis*, and *élégans londoniënsis*. Varieties *Donckelaëri*, *tricolor* and *candidissima* were sent by several contributors.

*Sanguisorbideæ.* (*Sanguisorbæ* Lindl. and *Rosacæ* 5th tribe *Sanguisorbæ* Richard.)

**SANGUISORBEA** (From *Sanguis*, blood, and *sorbes*, to absorb.)  
*canadënsis*.

*Root* perennial. *Stem* about five feet high, branching. *Leaves* pinnate, upper primæ opposite, lower approximate, petiole occasionally stipulaceous at the base: *pinnæ* subcordate, beautifully and regularly serrate, glaucous beneath and prominently veined. *Flowers* minute, numerous, in compact cylindrical spikes. *Petals* four, white on the edges, with a green midrib. *Sepals* two, green, ciliated, inferior, caducous. *Germ* situated between the calyx and corolla, angular. *Stamens* becoming elongated after the expansion of the flower: *filament* white, flattened on the upper surface. *Anther* on apex of filament, brown. *Style* a little shorter than stamens, capitate, with an elegant and minutely divided stigma, (a fact which Elliott seems to question, he probably describing from a dried specimen.) Grows in the vicinity of Boston; September and October; edges of meadows and swamps.

A decidedly conspicuous plant for autumnal cultivation, and would become a great favorite in the garden were it better known. At a season of the year when little else than some of the later phloxes, *Dracocéphalum virginicum*, native asters, and a few other lingering perennials, assist to render cheerful the closing scenes of floricultural labors,—even at a time when frost sufficient to destroy the dahlia has occurred,—this hardy native may be seen, unharmed and capable of adding one more offering to floral beauty. Grown with a little care, in a moist situation, in which it especially delights, its beautiful pinnated leaves, of considerable length and delicate color, rising from the ground and clothing its tall, graceful stem, and its numerous heads of minute flowers, with exserted stamens, make it an appropriate and elegant addition to the flower border. Like many other plants indigenous to a soil neither decidedly wet nor dry, and subject to occasional and extreme alternations, this will be found to accommodate itself to the vicissitudes of the season. I have at this

moment before me a specimen from an individual, which, during the long, late drought, has, with the sacrifice of a few of its lower leaves, grown to its usual altitude, and produced several flower spikes. Nor was its situation by any means congenial to its habit, growing, as it does, in the shade of a *Gleditschia*, and near which other plants have severely suffered. It is greatly to be wished that an increased attention be manifested towards the introduction and cultivation of some of our rarer native flowers. The amateur florist, with a laudable zeal and an all-grasping ambition, introduces every thing *new*, be it ever so comparatively worthless, and liable to be consigned to oblivion after one year's trial; while, should his eye by chance rest on an unique or beautiful specimen in a bouquet, or on a flower-stand of some lover of native flowers, he is surprised to learn, that what might become the pride or humble ornament of his border, could be procured at no great distance, and with little trouble. The cultivation of our native herbaceous perennials, and even of our native shrubs, would be worthy the closer attention of our floral market gardeners. A superbly grown cardinal flower, or a fimbriated orchis in its proper soil,—a fine plant of *Rhodora*, *Rhododendron maximum*, *nudiflorum* and *viscosum*, *Lilium superbum*, *canadense*, *philadelphicum*, under the attentive cultivation of such florists, would undoubtedly produce as much per pot or root as an antique rose, a double gilliflower, some monstrous hybridized foreign co-species, or far-brought sister species, not half so beautiful nor gaudy. It would be pleasant to see the city gardens vying in luxuriance and vividness with the sylvan glades and sunny hills of the country; reminding many a pale, wan and business-harassed citizen of other pursuits, and perhaps enticing him to an occasional and salutary dismissal of care and incessant toil, by a renewed acquaintance in the almost forgotten scenes of early days.

Dr. Lindley has separated a few plants which constitute, under his authority, a new natural order, the *Sanguisorbeæ*, from the *Rosaceæ* of Jussieu, of which it formed a section, or the fifth tribe of the *Rosaceæ* of Richard. "This order, usually combined with *Rosaceæ*, appears to me to demand a distinct section, on account of its constantly apetalous flowers, its indurated calyx, and the reduction of carpella to one only," &c. (*Introd. Nat. Syst.*) The apparent calyxes in *Sanguisorba*, between which and the supposed corolla the germ is situated, and which disappears after the expansion of the flower, must be regarded as floral bractes. Elliott notices this peculiarity in his minute description of the particular species at the head of this article. In this case the flower is apetalous and the corolla superior. One of the essential characters in the description of Jussieu's section *Sanguisorbiæ*, viz. "the stigma in the form of a pencil or feather," is elegantly exhibited in this species.—*J. L. R.*

*Fabaceæ* or *Leguminosæ*.

**HOSACKIA** Doug.

*stolonifera* Lindl. Creeping-rooted Hosackia. A hardy herbaceous plant; growing about three feet and a half; with red flowers; appearing in June; a native of California. Bot. Reg., 1877.

A hardy herbaceous plant, with the habit and general appearance of some of the coronillas. The leaves are pinnate and the flowers axillary, on the terminal points of all the branches, and are slightly drooping upon the peduncle; flowers in color greenish-red, and not very attractive, but the plant is valuable as growing very freely. It is increased freely by seeds. Sent to the London Horticultural Society's garden, by Mr. Douglas, from California. (*Bot. Reg.*, Aug.)

**LUPINUS**

*vérsicolor* Lindl. Party-colored Lupine. A hardy perennial plant; growing about two feet high; with pink, purple and white flowers; appearing in May and June; a native of California. Bot. Reg., 1879.

"A very beautiful lupine, introduced from California by the Horticultural Society, and hitherto but little known." It has been called a dwarf variety of *L. rivularis*, but Dr. Lindley considers it a distinct species. The plant has a decumbent habit, and "produces a great profusion of its pale, many-colored flowers, breathing the sweet perfume of the wild bean, during the months of May and June." After this it assumes a shaggy habit. Flowers about the size of the common *L. perennis*. We have noticed a species (p. 253,) as flowering in our garden, of which we had lost the name; we think it probable that it may be referred to the *L. vérsicolor*; it has the same habit and the same colored flowers, but it never occurred to us to notice whether its blossoms are fragrant or not: from what observation, however, we took at the time the plant was in bloom, we should recognise it as the *vérsicolor*. (*Bot. Reg.*, Aug.)

**CHORIZEMA** Lab.

*ovata* Bort. Ovate-leaved Chorizema. A green-house shrub; growing from one to two feet high; with scarlet and yellow flowers; appearing in June; cultivated in peat and loam; increased by cuttings; a native of New Holland. Pax. Mag. Bot., Vol. IV, p. 153.

A most exquisitely charming and brilliant species, introduced by Mr. Baxter as late as 1831. Like many other New Holland shrubs, which are rather difficult to increase, and which seem to defy the attempts of cultivators to grow them in a healthy state, it is yet found in but very few collections in Britain, and is less often seen in flower in any degree of perfection. The plant is erect in its habit, with small alternate, ovate, acuminate leaves: the flowers appear in terminal racemes or small clusters; the vexillum, or two upper petals, is margined with rich scarlet or crimson, and is yellow at the base. The drawing represents a terminal branch, densely covered with these brilliant and showy blossoms. It flowered in the nursery of the Messrs. Young, at Epsom.

Mr. Paxton has grown and successfully flowered this splendid

plant, and has annexed to the description of this species his mode of cultivation, from which we extract the following as the substance of his remarks:—

“Like many other valuable New Holland plants, we find it a matter of difficulty to grow this species to a good natural size, and at the same time handsome. The majority of the plants, from some cause, not clear to us, either draw up very weakly, or, what is worse, scarcely progress at all. The following are the probable causes which work against its successful cultivation. First, being placed at too great a distance from the glass, which always tends to draw them up weakly; the atmosphere too close and damp; the sure consequence of the want of a free circulation of air or want of light. Secondly, improper soil, careless potting or incautious watering. By keeping these matters in view, and carefully refusing to practise either, we have succeeded in growing plants of this description to a degree of excellence far surpassing our expectations. The soil in general recommended is an equal mixture of very sandy peat and loam; this composition, for plants like those we are now speaking of, does not fully accord with our experience; the soil used here, will, therefore, be found to differ. We select a quantity of peat, carefully avoiding such as does not contain a good deal of fibre, or that has not a considerable portion of white sand equally mixed with it, rejecting, as entirely worthless, all such as inclines to be stiff, or very sandy; to this is added no more than one fourth of mellow sandy loam; the whole is then carefully blended and examined, and if the grains of sand are found not to touch, or nearly so, throughout the whole, so as to give it a grayish cast, what more sand is thought sufficient is thrown in and properly mixed up. The soil is never shifted: this practice is discarded, as taking out the most essential part, namely, the fibre; but after being well broken up with the back and edge of the spade, what lumps remain too large are reduced with the hands. Any soil naturally retentive, or that inclines to become close, is always objectionable for them, and, in short, all hair-rooted plants.” Always give two inches of drainage of broken potsherds, and place the plants in the green-house, as near to the glass as possible.

“One thing,” Mr. Paxton states, “that greatly accelerates the growth, and tends to insure success, in cultivating these plants, is to avoid setting the pots where their sides are likely to be dried much by the sun; this practice materially injures the young roots, which always like to be between the side of the pot and the soil, and consequently sickens and weakens the plant. . . . In the winter it is not the growth of the plants that is the cultivator’s study; it is, rather, how he shall best keep them alive until the return of the growing season . . . . Potting is in general looked upon as of minor importance, but the truth is, a

badly potted plant, however healthy when shifted, never thrives. It is instructive to turn out the balls of several recently potted plants, and observe, where the soil is loose or in holes, how it affects their growth: where the soil is compact, and properly put about the roots, the plant will grow freely and root well; but, on the other hand, if the soil is put in loose, or left in holes, the plant never properly thrives, but languishes and ultimately dies, if allowed to remain in that state; it is therefore necessary to place the soil compactly and properly about the roots when potting, never forgetting to effectually drain every pot, as before directed." (*Pax. Mag. Bot.*, Aug.)

These observations apply to nearly all Cape and New Holland plants, and, as respects the potting of plants, to all kinds in cultivation. Plants suffer as much, and oftentimes more, from bad potting, as from any other cause.

### *Polygalaceæ.*

*MURALTIA* Neck.

*stipulacea* Stipular Milk-wort. A green-house shrub; growing three feet high; with white and purple flowers; appearing in summer; cultivated in sandy peat and loam; increased by cuttings; a native of the Cape of Good Hope. *Pax. Mag. Bot.*, Vol. IV, p. 149.

*Synonymæ:* *Polygala stipulacea.*

"Interesting at all seasons, but when in flower it is doubly so, not so much on account of its neat character, as for the great length of time its numerous little gay variegated flowers continue in perfection, thus maintaining a contrast the most pleasing between the flowers and foliage for many months." The polygalas are tolerably well known; this was formerly considered one, but has latterly been united to *Muraltia*. The leaves are linear and pointed; the flowers are axillary, on the terminal branches, and, though small, the abundance of them give the plant a lively and interesting appearance. It is easily cultivated in sandy peat, with a very small portion of open loam. (*Pax. Mag. Bot.*, Aug.)

*Herstéria* Dec. Herster's *Muraltia*. A green-house shrub; growing about three feet high; with light purple and white flowers; appearing in summer; cultivated like the *M. stipulacea*; a native of the Cape of Good Hope. *Pax. Mag. Bot.*, Vol. IV, p. 150.

*Synonymæ:* *Polygala Herstéria.*

Very similar to the *M. stipulacea*, and, like that species, "worthy of a place in every green-house collection." It flowers abundantly. The drawings of both were taken from plants in full bloom at Chatsworth. (*Pax. Mag. Bot.*, Aug.)

### DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

#### *Lobeliaceæ.*

*CLINTONIA* pulchella.

We have previously noticed this species. (See p. 177.) But the information which Mr. Paxton has supplied on its cultivation we consider valuable. Mr. Toward, of Bagshot Park, has communicated to Mr. Paxton the following as his mode of man-

aging the plants in pots:—"The seeds were sown about the middle of September, in a well drained pot, the soil used being light and sandy; the seeds being barely covered with a very fine top soil, the pot was placed in a moist heat till the plants were of sufficient size to prick off into sixty-sized pots [thumb pots] of the same light sandy soil, putting five or six in a pot; they were then placed in the green-house, near the glass, or in an airy situation, till the following February, when they were shifted again into small sixties, filled with soil composed of two parts leaf mould, enriched with strong well decomposed manure, one part good loam and sand, and placing three plants in a pot; they were then placed in a house, the temperature of which was kept at from 50° to 60°. In a short time they began to grow vigorously, being shifted regularly, as they required it, each time, into pots one size larger, until they finally flowered in a twenty-four size, [number four of our gardens.] After the plants had been in heat some time, and began to show symptoms of flowering, they were taken back to the green-house, where they have been in flower these two months, presenting, at the present time, (June 16th,) one entire mass of bloom, some of them being trained in cones two feet high and three feet in circumference." It requires plenty of water when it commences to bloom. (*Par. Mag. Bot.*, Aug.)

### *Primulæceæ.*

#### PRIMULA

*venusta* Reichenb. Purple Auricula. A hardy perennial plant; growing six inches high; with purple flowers; appearing in May; a native of Hungary; introduced in 1833. *Bot. Reg.*, 1983.

A pretty species, with foliage like the *P. auricula*, and dull purple blossoms, on umbels of from three to five each, on short slender stems. It is distinguished from *P. auricula* by its smooth toothletted leaves and long-tubed calyx. It grows in the hilly parts of Hungary, and also in the crevices of rocks at Krain, near Idria. It was introduced to England, from the Botanic Garden at Vienna, by the Hon. W. F. Strangways, who furnished the specimen from which the drawing was taken. Mr. Strangways suspects that this species may have been, in part, the parent of many of the garden varieties, "a conjecture," Dr. Lindley remarks, "which the eye of the corolla much strengthens." It is a pretty little species for a border flower. (*Bot. Reg.*, Aug.)

### MONOCOTYLEDONOUS PLANTS.

### *Liliæceæ.*

#### ORNITHOGALUM

*latifolium* Linn. Broad-leaved Ornithogalum. A green-house(?) plant; growing two feet high; with greenish-white flowers; appearing in April and May; a native of Egypt. *Bot. Reg.*, 1978.

*Synonymæ:* *O. maximum* Clus. *Stellaria latifolia* Menk.

A very handsome and showy species, throwing up a spike ter-

minated with a pyramid of greenish-white flowers. It is supposed to have been originally found in Arabia and Egypt. *O. gargánica* seems the nearest approach to this species, which, Dr. Lindley seems to think, may be but a garden state of the former: it is common in gardens, but does not seem to be known by botanists. Figured from the collection of Mr. Strangways. (*Bot. Reg.*, Aug.)

### *Orchidaceæ.*

#### *CYMBIDIUM ensifolium* Linn.

var. *striatum* Lindl. Streaked *Cymbidium*. A green-house epiphyte; growing about a foot high; with red and green flowers; appearing in May. *Bot. Reg.*, 1866.

*Synonymes*: *Epidendrum ensifolium* Linn. *sp. plant.* *Limodorum ensatum* Thunb. *f. jap.* C. *ensifolium* Swartz. C. *ensifolium* var. *striatum* *Bot. Mag.*, 1751.

A very pretty variety, with greenish sepals and white petals, streaked with red. It is similar in habit to our well known species. It is of easy cultivation, requiring only the protection of the green-house, and produces an abundance of its slightly fragrant flowers in the spring. *C. xiphiifolium*, with spotless pallid flowers, "is very near this species, [*C. ensifolium*], and is perhaps a variety." It flowered in the London Horticultural Society's garden. It was introduced long since, but seems to have been lost to collections. (*Bot. Reg.*, Aug.)

#### *DIPODIUM* R. Brown. (From *dis*, two, and *pous*, a foot; in allusion to the two stalks of the pollen masses.)

*punctatum* R. Brown. Dotted *Dipodium*. A stove(?) epiphyte; growing from one to two feet high; with spotted red flowers; appearing in December; a native of New Holland. *Bot. Reg.*, 1880.

*Synonymes*: *Dendrobium punctatum* Smith's *Exot. Bot.*, t. 12.

"A most curious, leafless, terestial orchidaceous plant, with thick fleshy fibrous roots and purple spotted flowers." It grows about two feet high; the stem is of a brownish purple, terminated with a spike of its very elegant blossoms. It was found by Dr. Brown, in New Holland and Van Diemen's Land, though rare in the latter place, and by Allan Cunningham at Port Jackson. It probably requires a sandy peat soil. It flowered in the splendid collection of the Messrs. Loddiges. (*Bot. Reg.*, Aug.)

#### *ONCIDIUM*

A species called *O. bifolium* is figured in the *Horticultural Journal*, but without any remarks upon its character or cultivation. It has rather large yellow flowers, collected in a raceme, and is a handsome species.

#### *MAELENIA.*

This genus, in honor of M. J. F. Vandermaelen of Brussels, has been established by M. Dumortier; some notice of which will be found at p. 402, in the present number.

*Mittonia spectabilis* is the name of a new orchidaceous plant which has flowered with the Messrs. Loddiges. Dr. Lindley states that it will soon be published in the *Botanical Register*. It is a native of Brazil.

Plants in flower in our garden Oct. 20th, in the open air, after the severe frosts which occurred in the early part of the month had almost destroyed vegetation.

*Verbena Aubletia*. We have noticed the great beauty of this species several times. A large bed of plants was covered with its beautiful heads of rosy-purple blossoms on the 20th of October. The foliage was not in the least injured. Its hardiness is remarkable, and, for a late flowering plant, we know of none more valuable.

*Verbena chamædrifolia*. This charming and dazzling little plant was also in full splendor. A large patch of it, all grown from one small plant set out late in June, was thriving vigorously and flowering in profusion. It is one of the latest plants destroyed by the frost; and yet it can only with great difficulty be kept through the winter in pots.

*Delphinium Ajacis*, or Rocket larkspur. One of the finest of all annuals, and by timely sowings may be had in bloom from May until November. A bed sown late in October or early in November, will bloom superbly in May; one sown in April will bloom in July; and one sown in July will bloom in October. We have had plants with spikes of flowers eighteen inches in length. Every person who has two foot square of ground, to spare, should immediately, if not done before, plant it with the seeds.

*Oenothera Lindleyana*. This species is valuable for its pretty flowers late in the season, as well as for its great abundance of them during the whole of the summer. Several plants are finely in bloom.

*Chrysæis crœcea* (formerly *Eschscholtzia*), is another elegant plant after severe frosts; its brilliant saffron blossoms were displayed in profusion at the above date.

*Gaillardia aristata* and *bicolor*. Both fine perennials, flowering from June to November. Plants kept well cut of old flowers were exhibiting an abundance of handsome blossoms.

*Iberis* (candy-tufts.) The common white and purple and the new dark variety are each fine annuals, and when sown as recommended for larkspurs, will bloom in great splendor throughout the autumn, after the most severe frosts. One sowing affords but a small quantity of bloom in comparison with what may be procured by planting three times.

*Leptosiphon densiflorus*. An exquisite annual introduced this year. It flowers early, and the plants continue to branch out and display an abundance of blossoms until very late. It should be generally grown next year.

*Convôlvulus minor*. If not sown too early, exceedingly fine late in October. When sown in May the plants get too bushy



by October; but if planted in the latter part of June they will be neat and showy ornaments of the garden.

*Veronica spicata* var. *pumila*. A neat dwarf variety, with spikes of deep blue flowers. As late as the date we have reference to, several plants were full of flower spikes. The old faded flower stems should be cut off, and the plants will bloom better.

*Antirrhinum speciosum*. A species extremely showy after severe frosts; its slender stems, from one to two feet high, are terminated with a spike of bright purple blossoms, which remain in perfection a long time. Patches of it in our garden have flowered profusely.

*Chrysanthemums*. Both of the kinds, the white and yellow, are handsome, and if very double, contribute greatly to the decoration of the garden. Large plants (Oct. 20th,) were full of flowers.

*Phloxes*. Several species and varieties of phloxes, if the main flower stems have been cut off after the blossoms have faded, will send up an abundance of axillary shoots, which will continue to bloom very late. At this date we had a great many species in flower.

*Pansies*. All the fine varieties of this charming flower bloom beautifully at this season. We had several named varieties with superior specimens on them. The cool weather is favorable to their growth. During the sultry days of July and August they flower very inferior to what they do in June and October. A bed of fine ones is a grand ornament all the autumn, until the snow covers the ground.

*Mignonette* and *sweet allyssum* are two of the most odoriferous plants the garden affords; and they bloom profusely, uninterrupted by frosts which destroy most other plants. Beds of them are invaluable.

We have enumerated these few plants as the most prominent ones of real beauty in the open garden at this season of the year. There are others, which often bloom well in favorable autumns, but few which would have lived through the severe frosts of this year. A choice garden, containing patches of the above plants, would present as gay a display as it would in the month of June. We hope more attention will be given to the appearance of the garden in autumn; too often, after the first cool weather, it is suffered to run to weeds and neglect. A little care and labor will make it interesting until the frost shall have closed the ground so that vegetation cannot proceed.

## MISCELLANEOUS INTELLIGENCE.

## ART. I. General Notices.

*Cactus peruvianus*.—A plant in the royal garden (France,) attained the height of forty feet and eight or ten inches diameter below. The age of this specimen was one hundred and thirty-two years, and, when first planted, was only four inches in height and two inches diameter, and two years old. (*Annales de Fromont*.)

*Polypodium corcovadense*.—On the ridge of the Corcovado the vegetation is uncommonly strong and luxuriant, but the higher we ascend, the large trees gradually become more rare, and the bamboos and ferns more numerous, among which is a beautiful arborescent fern, fifteen feet in height. (*Spix and Martin's Brazil*.)

*Wistaria Consequana*.—We are again called to notice this lovely plant, as we were struck with the great beauty of some specimens now in flower at Mr. Young's, Epsom, which are trained up poles of twenty or thirty feet in length, and, by being continually deprived of their young and superfluous shoots to within a few eyes of the stem, flower most profusely; and what can be a more beautiful object than a long pole completely covered with racemes of fine blue flowers, with here and there a few young leaves showing themselves! This system of growing climbing plants to poles, has been carried, by Mr. Young, to a considerable extent, and is attended with the most complete success, especially in roses, of which he has some most beautiful specimens; but he has likewise some plants of the *Wistaria* treated as dwarf shrubs, which, by being continually cut down to within a short distance of the ground, have acquired a shrubby habit, and thus produce their flowers very abundantly: it is almost needless to add, that these, when in flower, have a most interesting and beautiful appearance. (*Pax. Mag. Bot.*, for July.)

*Kyanising Wood for Garden purposes*.—In Vol. XI, p. 536, a short notice is given of the nature of Mr. Kyan's process for the preservation, not only of every kind of wood, but also of every kind of vegetable fibre, whether in the form of cloth or cordage. The object of Mr. Kyan's composition is, to effect for wood what tanning effects for leather; and the chemical rationale of both processes will be found given in the *Architectural Magazine*, vol. II, p. 236. During the last twelve-months we have heard various accounts of the success of Mr. Kyan's invention; and the general effect upon our minds, till lately, has been rather unfavorable towards its use than otherwise. Mr. D. Beaton, however, informs us, that, while at Hatfield, (which place he has just left,) he had an opportunity of using it and seeing it used; and that he has formed a very favorable opinion, at least as to the use which might be made of it in gardening. He has had several deal boards saturated with it, and tallies for naming plants cut out of them; and he has seen thin elm boards, which, after being newly sawn up, had been saturated with the composition, remain in the sun, against a wall with a southern exposure, a whole summer, without shrinking or twisting in the slightest degree. He recommends all boards intended for hot-bed frames, plant-boxes, and all similar purposes, to be Kyanised; and we would farther suggest, that the process should be extended to all kinds of rods and stakes used for tying up plants, or for protecting single trees; to all rods, twigs, and boards used in summer-houses, rustic vases, ornamental fences, and espalier rails, and to all basket-work, hampers, wicker

protectors for plants, &c. We would recommend all bast mats to be immersed in Kyan's composition; all netting and canvass made of hemp or flax; and all garden lines, sash-lines, packthread for tying plants, lists for nailing wall-trees, &c. It is only necessary to send the articles which are to be Kyanised to the nearest Kyan's tank, where the process will be effected in forty or fifty hours, at a mere trifle of expense. These tanks are now established in various towns, and several gentlemen have private tanks for their own use. If the benefits to be derived from this composition come at all near to what is held out by the patentee, by Dr. Birkbeck, and by Dr. Dickson, in his late lectures on the Botany of Architecture, before the Institute of British Architects, wood tanneries will soon be as common as tanneries for leather. There is a tank at Blackwall, where any gardener within ten miles of London may (with his master's permission) try some wood, cut into the form of tallies for pots, and also for plants in the open air, and other specimens of the articles mentioned above; and we should like much if they would do so, and, in a year or two, let us know the result. We intend ourselves to have some experiments tried; an account of all which, with a particular account of the process, we shall give in the *Arboretum Britannicum*. In the mean time we should be glad to hear the experience of different persons on the subject, from different parts of the country. (*Gard. Mag.*)

[It is stated, in the *Gardener's Magazine* for July, that the Messrs. Loddiges Kyanise all the wood from which they make their labels, stakes for plants, &c. The wood so prepared lasts for an interminable length of time, and saves the necessity of renewing labels, &c. every year, which decay from being put into the soil. With the hope that the same method may be adopted here, we have quoted from the *Architectural Magazine* referred to above, Mr. Kyan's process, the expense attending which is very slight.—*Cond.*] "Mr. Kyan, who had been for a series of years (since 1812,) engaged in trying a variety of experiments on the preservation of timber, was led to the present experiment by having, as he conceived, at length ascertained that *albumen* was the primary cause of putrefactive fermentation, and subsequently of the decomposition of vegetable matter. Aware of the established affinity of corrosive sublimate for this material, he applied that substance to solutions of vegetable matter, both acetous and saccharine, on which he was then operating, and in which albumen was a constituent, with a view to preserve them in a quiescent and incorruptible state, and obtaining a confirmation of his opinions by the fact that, during a period of three years, the acetous solution openly exposed to atmospheric air had not become putrid, nor had the saccharine decoction yielded to the vinous or acetous stages of fermentation, but were in a high state of preservation; he concluded that corrosive sublimate, by combination with albumen, was a protection against the natural changes of vegetable matter."

"The mode in which the application of the solution takes place, is in a tank similar to the model on the table. They are constructed of different dimensions, from twenty to eighty feet in length, six to ten in breadth, and three to eight in depth. The timber to be prepared is placed in the tank, and secured by a cross beam, to prevent its rising to the surface. The wood being thus secured, the solution is then admitted from the cistern above, and for a time all remains perfectly still. In the course of ten or twelve hours the water is thrown into great agitation by the effervescence occasioned by the expulsion of the air fixed in the wood, by the force with which the fluid is drawn in by chemical affinity, and by the escape of that portion of the chlorine or muriatic acid gas which is disengaged during the process. In the course of

twelve hours this commotion ceases, and in the space of seven to fourteen days (varying according to the diameter of the wood,) the change is complete, so that, as the corrosive sublimate is not an expensive article, the albumen may be converted into an indecomposable substance at a very moderate rate."

*Discovery of a new flower.*—At a meeting of the Botanical Society, held at London, on the 8th of September, a communication from Mr. Schomburgk was read, dated New Amsterdam, Berbice, May 11, announcing his discovery of a new plant allied to the water lily, in the River Berbice, which has been named *Victoria reginæ*, by permission of Her Majesty. According to Mr. Schomburgk's description it is a magnificent production, having a flower fifteen inches in diameter, and gigantic leaves, from five to six and a half feet in diameter. The leaf is salver shaped, with a broad rim five and a half inches high; light green above and a vivid crimson below. The flower consists of many hundred petals, passing in alternate tints from pure white to the brightest pink and rose. To enhance its beauty, it is sweet scented. The surface of the water was covered with these splendid plants. (*Newspaper.*) [We know not what reliance to place upon this report, as we have seen no account of it in our London botanical or floricultural periodicals, but we give it as we found it, going the rounds of the newspapers.—*Cond.*]

*Vanilla planifolia.*—The *Vanilla planifolia* of Andrews, cultivated at the botanical garden of Liege, has produced more than sixty flowers, of which fifty-four were artificially fecundated. The result was, the production of as many fruit from six to seven inches long, of an excellent odor, sweet, and of an agreeable taste. The perfume and the aroma are more powerful than the vanilla of commerce.

Three pounds of vanilla have been obtained by this process, which is due to the care and culture of Mr. Charles Morren, professor of botany at the university of Leige, and who will shortly publish a treatise on the subject.

A branch of the ripe fruit of the *Vanilla planifolia* was exhibited at the Casino, at Gand, during the late exhibition of flowers, and a silver medal was unanimously adjudged to Mr. Morren for the same. (*John Maddison, Ghent, March 18, 1837.—Hort. Jour.*)

*Sago.*—This well known nutritious substance is a farinaceous pithy matter, extracted from the inside of the trunk of a tree, which grows spontaneously, and without the least culture, in the Molucca, and other isles of the Indian Ocean, as well as throughout the south-east of Asia generally. Being highly nutritive, and the tree which furnishes it flourishing in a climate which disposes the human body to inaction, it is no wonder that in many places it should become the general food of the population—to the neglect of the cultivation of grain and other plants, which require some amount of exertion. The sago, or *libley tree*, as it is called by the natives, is of very peculiar growth; the trunk being formed of the bases of the leaves; growing at first very slowly; and being covered with thorns or spines: so soon, however, as the skin is well formed, the growth of the tree proceeds with great rapidity, so that it speedily attains its full height of thirty feet, with a girth of five or six, and losing at this stage its thorny accompaniments. Like the coconut tree, it has no distinct bark that can be peeled off. The trunk is a hard, ligneous tube or cylinder, about two inches thick; the internal area of which is filled with a farinaceous pith, intermixed with numerous longitudinal fibres. The maturity of the tree is ascertained by the transpiration of a whitish dust through the pores of the leaves; on the appearance of which the trunk is felled near to the ground. When felled, it is cut into lengths of five or six feet;—a part of the wood is then sliced off, and the workmen, coming to the pith, cut across the longitudinal

fibres and the pith together, leaving a part at each end uncut; so that when completely excavated, it forms a trough, into which a portion of the pulp is returned mixed with water, and beaten with a spatula or piece of wood. The fibres being thus separated from the pulp, float at the top, and the flower or farinaceous powder subsides. After being cleared in this manner, by several waters, the flour is put into cylindrical baskets made of the leaves of the tree. One tree will produce from *two to four hundred weight* of flour. We seldom or never see sago, in Europe, but in its granulated state; to bring it into which, the flour is moistened and passed through a sieve into a very shallow iron pot, held over a fire; and this enables it to assume the granular form. In fact, all our grained sago is half-baked, and consequently keeps a long time; but the pulp or flour of which it is made, if exposed to the air, soon becomes sour. (*Hort. Jour.*)

*Gamboge.*—This is a resinous gummy juice, of an intensely yellow color, which is extracted, drop by drop, on incision, from a thorny shrub of the genus *mangostan*, which grows in Cambodia, Siam, and China; rising very high, and twining round other trees like the ivy. The best gamboge is hard, brittle, high colored, inflammable, of a sweetish taste and peculiar flavor, and soluble both in spirits and water: it is used medicinally, as a purgative; and, by painters in water-colors, as a very brilliant pigment resembling gold. That which is imported into this country comes principally from the village of Sigan, in the province of Riangsi, in China, but many prefer the gamboge of Siam. The mangostan, a fine fruit of Java, about the size of a small orange, exudes a yellow gum from its succulent rind, in wet weather, which is a variety of the gamboge. (*Id.*)

*The Jasmine.*—Several of the poets who have celebrated this charming flower allude to the custom which prevails in some countries of brides wearing jasmine flowers in their hair. The origin of the custom is said to have been, that a Grand Duke of Tuscany had, in 1699, a plant of the deliciously scented jasmine of Goa (*Jasminum odoratissimum*), which he was so careful of that he would not suffer it to be propagated. His gardener, however, being in love with a peasant girl in the neighborhood, gave her a sprig of this choice plant on her birth-day; which she planted as a memorial of his affection. It grew rapidly, and every one who saw it admired its beauty and sweetness, and wished to have a plant of it. The girl supplied each comer with cuttings, at so handsome a price as soon to obtain money sufficient to enable her to marry her lover. The young girls of Tuscany, in remembrance of this event, always deck themselves, on their wedding days, with chaplets of jasmine; and they have a proverb saying that *She who is worthy to wear a crown of jasmine, brings a fortune to her husband.* (*Id.*)

*Extraordinary Dragon's-blood Tree.*—In the city of Oratava, in the island of Teneriffe, there flourishes, in the garden of Mons. Franchi, the most beautiful and interesting dragon's-blood tree in all the Canary Isles, and, perhaps, throughout the globe. It is sixty feet in height; thirty-nine in circumference, in the middle part; and seventy-two at the base. At the height of eighteen feet, the trunk divides into twelve limbs or branches, between which a *dining table* has been constructed, at which fourteen guests have often sat, and been entertained with ease and comfort. This surprising tree existed in almost its present state *three hundred years ago*, at the time of the conquest of Teneriffe by the Spaniards; and when they destroyed the forests of this part of the island, in order to construct their habitations, they respected this magnificent dragon's-blood tree. The most ancient title-deeds of the city mention it as a boundary and fixed point of admeasurement, both for houses and land. It possesses at the present day really a very beautiful

appearance; is of vigorous vegetation, and is likely to last for five hundred years to come. (*Id.*)

*The Araucaria.*—The following account of the *Araucaria*, probably the *A. excelsa*, we extract from a review of La Cruz's *Expedition across the Pampas*, in the April number of the *Edinburgh Review*. It will be read with interest. D. Basilio Villarino explored the Rio Negro, in 1782, nearly to the sources of the southern branch, and an account of his expedition is added to that of Le Cruz's by way of supplement, in anticipation of its appearance in his future volumes:—

“Villarino obtained from the Indians some bags of pinones, as he calls the nuts of the *araucaria*; but he appears to have remained quite ignorant of the true character of that fruit, and of the tree which produces it. We have already remarked that the River Laga, or the Valley of Antuco, is the northern limit of the *araucaria*, where its presence is indicated by the name *Rio dos Pinos*, given to more than one mountain-stream; the *araucaria* being in common language styled a pine. But, so far north, the *araucaria* flourishes only at an elevation of nine or ten thousand feet above the sea, and it cost the botanist Poeppig a hard day's labor to climb to the nearest of the pine woods, as they are commonly called, from the Valley of Antuco. The *araucaria*, the most majestic of extra-tropical trees, rises to the height of fifty or a hundred feet, without a branch, and with a perfectly straight stem, and terminates in a dense crown of dark foliage, resembling in form a compressed cone. The fruit is of the size of the largest melon, and contains two or three hundred nuts or kernels, each equal in size to two almonds. These, when boiled, taste like chestnuts, and are extremely nutritive. The wood of the *araucaria* is hard and heavy, and might, perhaps, prove a valuable timber, if the situation in which it grows were not generally so inaccessible. The forests of the *araucaria*, which cover the flanks of the Southern Andes, might, perhaps, alone supply food enough for all the aboriginal tribes from Antuco southwards to the Straits of Magellan. But the jealous and petty warfare of the Indians prevents the proper gathering of the fruit. The increase of their herds, also, and the wheaten bread obtained in traffic with the whites, have familiarized them with a more grateful and substantial diet. It is by no means to be deplored, that an article of food, obtained with so little exertion of toil or foresight as the *araucaria*, and consequently so peculiarly adapted for the support of mere savage life, should fall into disuse, and yield up its place to the produce of industry.”

“From Pequen, or Pehaen, the native name of this tree, the tribes in whose country it grows are called Pequenches.” (*La Cruz's Expedition across the Pampas*, in the *Edinburgh Review*, p. 58.)

## ART. II. Foreign Notices.

### ENGLAND.

*London Horticultural Society.*—The annual meeting of the London Horticultural Society was held on May 1st last. The report of the auditors was read, from which we learn that the amount of various receipts, for the previous year, ending May 1st, was £7180, 10s. 9d.

(about \$92,000.) This sum was mostly received at the monthly exhibitions of the Society, at their garden at Chiswick. £3500 has been paid of the Society's debt. The amount now due by the Society is reduced to £13,554. T. A. Knight, Esq., was elected President.

At the meeting on May 2d, a paper was read by Dr. Lindley, from the President, on the cultivation of strawberries. Messrs. Chandler exhibited *Camellia japonica* var. *corallina* and *eximia*, *Rhododendron Smithii*, and other plants. Mrs. Lawrence exhibited an extensive collection, among which was the *Camellia reticulata*. Mr. Green, gardener to Lady Antrobus, exhibited six remarkable seedling cinerarias. Mr. Glenny exhibited a handsome specimen of *Eriostemon buxifolium*. Mr. Young of Epsom exhibited *Camellia japonica* var. *coccinea major*. *Clématis montana*, from the Society's garden, was very beautiful. It possesses an odor similar to vanilla.

May 16th.—Mrs. Marryatt at this meeting exhibited seedling cinerarias and a fine specimen of *Clivia nobilis*.

June 6th.—At this meeting Mrs. Lawrence sent nine specimens of heaths, and *Cosmèlia rubra* and *Phlox Drummondii*. Mr. Hogg and Mr. Mountjoy exhibited fine heart's-ease. Mr. Dennis showed a *brown nasturtium*. Mr. Rawson exhibited a hybrid *Rhododendron* between *R. arboreum* and *R. ponticum*, which is said to have been brilliant and beautiful. Mr. Glenny exhibited *Kennedya dilitata* and *coccinea*. The flowers from the Society's garden were *Gaillardia picta*, *Phlox Drummondii*, *Sedum azureum*, and two petunias, a blush and a seedling hybrid; *Verbena Tweediana*, *Nemophila atomaria*, *Collinsia bicolor*, *Clématis montana*, and a large number of elegant *calceolarias*. The meetings were attended by a great number of the nobility. (*Hort. Jour.*)

An Exhibition of Plants took place at Worton Lodge, on the 22d of May, under the most distinguished patronage: as the exhibitors were persons who had taken prizes at the horticultural and metropolitan societies, the productions were generally of the highest class and in the greatest perfection. Gold medals were awarded, of the value of £15, £7, 10s. and £3. Mr. Butcher, gardener to Mrs. Lawrence, Mr. Redding, gardener to Mrs. Marryatt, Messrs. Lucombe, Pince & Co., Messrs. Brown, Mr. Gaines and Mr. Wilmot, were the principal receivers of the prices. (*Id.*)

*Spiræa japonica*.—A new species with this name has been lately introduced by Mr. Low of Clapton. It is of an herbaceous habit. The flowers are white and are produced very freely, and, contrasted with the deep green foliage, have a very neat and pretty appearance; it is, without doubt, a plant of great merit, and one in which no collection should be wanting. (*Pax. Mag. Bot.*)

Metropolitan Society of Florists and Amateurs.—This flourishing Society held its second show at Beulah Spa, on Thursday the 24th of August, 1837. It was one of considerable interest, and a large amount in premiums was awarded. Like all the shows of this Society, the specimens were remarkable both for their rarity and for the skill displayed in their cultivation. Upwards of twenty prizes were awarded for dahlias, the show of which, as early as this date, was very splendid. The most successful competitor was Mr. Widnall. His stand is stated to have been "truly beautiful," and the only winning one deserving the distinction of giving the names of the flowers. They were exhibited with the names attached, and obtained the gold medal: they were as follows:—

Widnall's Lady Dartmouth, Marchioness of Tavistock, Juliet, Emperor, Paris, Perfection and Sir Walter Scott; Springfield Rival, Glory of the West, Dodds's Mary, Jeffrie's Triumphant, Exemplar, Nimrod,

Pothecary's Lord Nelson, Metropolitan Perfection, Conqueror of Europe, Diadem of Flora, Girling's Suffolk Hero and Ruby, Shakspeare, Grant Thorburn; Queen of Trumps, Topaz and Sir H. Fletcher.

A greater part of these flowers were exhibited at the annual exhibition of the Massachusetts Horticultural Society this season, and we are glad to notice that Widnall's Marchioness of Tavistock is one of the best, as it has been pronounced by some cultivators, who consider themselves as judges of the dahlia, as possessing about equal!! beauty with the Beauty of Cambridge. We blush to record such a decision of so extremely superb a variety; and we envy not the taste of those who think so little of it.

We look with some interest to the reports of the grand shows which are to be held throughout the kingdom in September: they will probably inform us what are fine and what inferior varieties.—*Cond.*

*Dahlia Shows.*—We give the following list of several of the different dahlia shows, as advertised to be held in the various counties of England, together with the amount, (where stated,) of the value of prizes to be distributed. It shows at once the great zeal manifested in the cultivation of this splendid flower:—

Cambridge Grand Dahlia Show, open to all England, Sept. 8th, £75 to be awarded. Birmingham Grand Dahlia Show, Sept. 20, 21 and 22, about £100 to be awarded. Oxford Grand Dahlia Show, Sept. 4th, £50 to be awarded. Bath Royal Horticultural and Floral Society's Grand Dahlia Show, Sept. 19th, £60 to be awarded. Nottingham Grand Dahlia Show, Sept. 20th, £70 to be awarded. Windsor Royal Horticultural Society, Sept. 12th, about £40 to be awarded. Grand Dahlia Exhibition of the Chippenham Horticultural and Floral Society, Sept. 8th, about £50 to be awarded. Ashborne Floral and Horticultural Society's Dahlia Show, Sept. 26th, about £25 to be awarded. Eton Floricultural Society's Annual Show of Dahlias, Sept. 19th, about £50 to be awarded. Warwickshire Horticultural Flower Show, Sept. 8th, about £30 to be awarded.

There are six or eight other Societies which hold Dahlia Shows. The whole amount given away in prizes at all these, for dahlias alone, will probably amount to upwards of \$3000! This is truly encouragement to dahlia growers.—*Id.*

## FRANCE.

*Colossal Elm-tree at Brignoles.*—M. C. Aquillon, member of the Horticultural Society of Paris, &c., gives the following details respecting the large elm which exists in the Place Carami, at Brignoles, a town about twenty miles north of Toulon:—"On the 25th of October, 1564, Charles IX, being at Brignoles, lodged in the house of M. Desparra, which is opposite to this tree, and witnessed, with great pleasure, a ball which took place under it. Michel de l'Hospital, who was born in 1503, was chancellor in 1560, and died in 1573, speaks of this tree (as one even at that time likely to attract the attention of travellers,) in one of his works in Latin verse, composed on the occasion of his being exiled into Provence. Tradition supposes that this elm was in existence when the River Carami, which at present runs without the town, flowed by the place of that name. This colossus of vegetation has been for a long time supported on one side by a wooden post, and on the other by a piece of masonry, which fills up a large hollow in the trunk. Without these supports the tree would have been infallibly blown down; for the part supported by the wooden prop is hollowed out to the origin of the branches, and even serves as a retreat for poor artizans. The cir-



cumference at the level of the ground is about twenty-three feet, and in the narrowest part of the trunk, about eighteen feet. The thickness of the wood of the trunk is from nine to twelve inches; and in the projecting part it varies from three to four inches. (*L'Echo du monde Savant*, April, 1837—translated into the *Gard. Mag.*)

## BELGIUM.

*Grand Show of Plants at Ghent, in March last.*—This display of plants was probably one of the most extensive and magnificent that was ever made. Ghent and Brussels are both famous for the number of their gardens, and for the choice collections which are cultivated therein. Some notice of the most celebrated of them will be found in our I, pp. 352, 386. The prizes were open to all classes, from all parts of the world.

The occasion must have been one of great gratification to the amateur gardeners and nurserymen who witnessed the exhibition. Many of the most celebrated cultivators of Antwerp, Brussels, Frankfort, Louvain, Vienna, Paris, and London, were present, and acted as judges for awarding the various prizes. Of the exact number of plants sent for exhibition we are not informed, but the specimens were all registered, and we observe, in the report from which we quote, one number as high as four thousand seven hundred and eighty-six. One can hardly imagine the effect produced by such a vast number of the handsomest and most valuable plants in cultivation, collected together and arranged in such a style as to show them off to good advantage. Our annual exhibition, of which we think so highly, would sink into insignificance compared with such a truly grand and noble display of the most magnificent tribes of the vegetable kingdom. The following is a condensed account of the plants exhibited, and the award of the judges:—

*Prizes for all classes, and from all parts of the world.*—1st. The gold medal for the best collection of plants in flower, of which the lowest number of specimens was fixed at twenty, to Mr. J. F. Vandermaelen, Brussels. [A most interesting account of Mr. Vandermaelen's garden will be found in another page.—*Cond.*]

The silver medal, (first class,) Mr. Jacob Mackey, Liege.

2d. The silver medal for the plant in flower most remarkable for its beauty and good cultivation, Mr. Ferd. Reynders of Brussels, who exhibited a *Dryandra longifolia*, No. 3022.

The silver medal (1st class,) Mr. Jacob Mackey, for *Dryandra plumosa*, No. 3707.

The other plants and shrubs admitted to the honor of contending for the prize for the best cultivation, and which are, by the admission itself, entitled to "honorable mention," are as follows:—

*Helicodna speciosa*, Mr. P. J. De Catens, Antwerp.

*Anaryllis Johnsoni maxima* Mr. H. Donckelaer, (the son,) Louvain.

*Azalea Smithii coccinea*, *Rhododendron Russellianum* and *R. Smithii elegans*, Mr. H. Smet, Lisle.

*Dryandra longifolia*, Mr. F. Reynders.

*Banksia marginata* and *Dryandra cuneata*, Mr. Jacob Mackey.

*Camellia* var. *Parthoniæna*, Donckelaeri, and *elegans londoniensis*, the Horticultural Society of Antwerp.

*Eupacris impressa*, *Oncidium Papilio*, *Limodorum Tankervilleæ*, *Monachanthus luteus*, *Lælia anceps*, *Rhododendron arboreum*, *Camellia reticulata*, C. var. *striata*, *Pæonia suffruticosa*, *Polygala cordata*, *Banksia marcescens*, *Banksia ensifolia*, *Zamia horrida* and *Strelitzia juncæa*, M. F. Vandermaelen.

3d. No medal was awarded for the best collection of camellias.

4th. For the best collection of new species [*? varieties*,] of *Rhododéndron* and *Azàlea indica*, containing at least twenty-five plants, the gold medal was awarded to Mr. H. Smet.

5th. For the best collection of the genus *Amaryllis*, containing at least fifteen plants, the gold medal to Mr. Donckelaer (the son.)

The premier prize was awarded to Mr. Dieudonné Gerard, Namur, although the flowers had suffered much in the carriage.

6th. For the general collection of plants of the genus *Ròsa*, the smallest number to be thirty, no medal was awarded.

A very honorable mention was voted to be made of the collection of Madame Meeus Vandermaelen of Brussels, and also of that of Mr. Lordez, Berguissur.

*Prizes for amateurs and florists of Ghent.*—7th. Best plants in flower, Mr. Augustus Mechelynck.

8th. The silver medal for the plant in flower, most distinguished for beauty and skill in cultivation, was awarded for the *E'pacris grandiflora*, to Mr. Alex. Verschaffelt, Ghent.

Among the plants admitted to contend, and thus entitled to honorable mention, were *Azàlea indica*, *rubicúnda*, *lateritia* and *Smithii coccinea*; *Caméllia* var. *tricolor*, *revisa*, *triúmphans*, *Donckelaeri*, *Colvillii*, *delicatissima*, *élégans*, *candidissima*, *punctata*, *admirabilis*, *reticulata*, &c.; also, *Rhododéndron álta clerénse*, *ferrugíneum* and *púlchrum*, and other plants.

9th. For the collection of caméllias, (to consist of at least thirty specimens,) the gold medal to Mr. Ivon de Ruych, Barth, and a similar one to Mr. J. B. d'Hane de Potter; the merits being so equal, and so pronounced almost unanimously.

10th. For the collection of amaryllises, (fifteen at least,) the gold medal to Mr. Van de Woesleyne d'Hane.

11th. The richest and most varied collection of roses, (thirty plants at least,) the silver medal to Madame de Ruych.

12th. The gold medal for the best collection of new sorts of *Rhododéndron* and their hybrids, (twelve plants at least,) Mr. Ivon de Ruych.

13th. The gold medal for the best collection of the species of *Azàlea indica*, (at least twenty-five plants, ten varieties at least,) Mr. Charles Deloose.

*Prizes for all classes.*—14th. Gold medal for the best collection of new and rare plants to Mr. Alex. Verschaffelt; first silver do., Mr. J. Vangeert; second do., Chev. Parthon de von Antwerp.

15th. Silver medal for the most beautiful and meritorious specimen of *Agnóstus sinuatus*, Mr. J. Mackey.

16th. A silver medal for the most rare plant in flower, *Ceàlia*, sp. no., Mr. J. F. Vandermaelen.

17th. Gold medal for the best collection of forced plants, Aug. Mechelynck.

18th. Silver medal for the best cultivated specimen among the collection of forced plants, *Lilium cróceum*, Mr. A. Mechelynck.

19th. Gold medal for the best collection of orchidaceous plants, not less than twelve, Mr. Vandermaelen.

20th. Silver medal for the best collection of *E'pacris* and *Erica*, thirty plants and upwards.

The remainder of the prizes were principally for fine specimens of herbaceous plants. These are of course but a very few out of about five thousand specimens exhibited.

## ART. III. Domestic Notices.

**New mode of preserving Fruit.**—Mr. Clapp of S. Reading lately placed in our hands some fine specimens of last year's apples (nonsuches,) in a most excellent state of preservation. He stated to us that the apples were packed in barrels, with plaster of Paris, reduced to a powder, each fruit being completely covered. The apples were exposed to a temperature as low as zero, without receiving the least harm whatever. We hope this method will be further tried the present season; it was merely an experiment of Mr. Clapp's; but as it has succeeded so fully, we should be glad to see it in general practice. Probably pears and some other fruits may be preserved in the same manner. The apples which we tasted were fair, and as fresh as they were when picked from the tree, retaining all their flavor.—*Cond.*

**Cow Cabbage, or Casarean Kale.**—In our II, p. 453, will be found a notice of this cabbage. One or two plants are now growing at Mr. Cushing's, Belmont Place. The seeds were sown in the green-house, and the plants placed in the open garden in May. One plant had (a month since,) attained the height of about seven feet, and was growing very vigorously. The leaves were not remarkably large, and although it may be a profitable cabbage to raise for cattle, it possesses by no means the merits, as such, which have been attributed to it in English publications.—*Id.*

**The amber Crab-apple.**—The beautiful fruit of this variety is one of the most ornamental in the garden. We lately saw a tree in the garden of Mr. Johnson of Lynn, which was full of fruit, hanging in clusters of five or six each. The growth of the tree is erect and handsome, forming a fine round head, and is highly ornamental in shrubberies, far more so than the common crab. We would recommend it to all persons who are planting shrubberies or belts of ornamental trees.—*Id.*

**Large Valparaiso Squash.**—At the late annual exhibition of the Massachusetts Horticultural Society, a squash of this variety was exhibited, which weighed upwards of seventy pounds. It was of a handsome shape and fully ripe. This is the largest squash of this kind we ever saw raised.—*Id.*

**Phlox Drummondii.**—We were delighted to see this charming new plant, (discovered by Mr. Drummond, not many years since,) among the fine display at the late annual exhibition of the Massachusetts Horticultural Society. We believe that it is a profuse and constant flowerer, and equals, if not surpasses, almost all of the dwarf species. A very pretty variety of *P. paniculata*, with a white eye or disk, a seedling of Mr. Breck's, we think, was also pointed out to us.—\*\* [For some notice of *Phlox Drummondii*, see p. 302. Breck's *hybrid* seedling phlox is the name by which the variety here alluded to is known. It grows about five feet high, in blooming among the latest, and is decidedly one of the most beautiful in cultivation.—*Cond.*]

**Viola tricolor.**—Like the tulip and dahlia, the pansy has arrived to such a degree of perfection, as a fancy flower, as to possess certain requisites indispensable to admit it into favor, among amateurs. The good and necessary qualities in the form of petals, and in their coloring and pencilling, pointed out by some adept, would give great satisfaction to a sincere admirer of the—*Three-colored Violet.*

**Gradual Naturalization.**—*Calliopsis bicolor* (*Coreopsis tinctoria Nutt.*) seems in a fair way to become a naturalized plant, though, it is presumable, not with the same facility as some foreign productions. I met with several specimens in a meadow, into which it had strayed from a contiguous garden, and a single individual growing in independent hardihood, on the very road-side, distant from any cultivation. In both

instances it had become dwarfish, and the flowers small but brilliant—a return to native habits.—*R.*

*Pines of California.*—The following dimensions of a gigantic pine are given by Douglas, as taken by him from one discovered in North California. Extreme length, two hundred and forty-five feet. Circumference, at three feet from the ground, fifty-seven feet nine inches. Circumference, at one hundred and thirty-four feet from the ground, seventeen feet and five inches. Trunk uncommonly straight, bark remarkably smooth, whitish or light brown color, and yielding a great quantity of gum. Fruit cones fourteen inches long.—*Id.*

*Plants that stood out unprotected last winter in Athens, Ga.*—*Hedychium maximum*, *Blëtia hyacintha* and *Tigrídia pavônia* stood out in the open ground, totally unprotected last winter, and flowered somewhat sooner, and very much more finely, than those which were taken up and kept from frost until spring. The same may be said of *dablias*, *Caladium esculéntum*, and most *cannas*; but *C. iridiflora* perished, and *C. glauca* barely survived.—*Yours, M. A. W., Athens, Ga.*

*Hybrids between Ipomœa and Convólulus.*—I have again fine natural hybrids of *Ipomœa Quamóclit* and *coccinea*, and earnestly recommend trials of artificial impregnation between all the species of *Ipomœa* and *Convólulus*. What might not be expected from the beauty of a hybrid between *Ipomœa Quamóclit*, or *Convólulus Nil* and *Convólulus panduratus* or *paniculatus*?—*Id.*

*Cereus triangularis.*—This splendid species has lately bloomed at Mr. Cushing's, Belmont place, Watertown. The flower was remarkably large and extremely beautiful, nearly equalling, both in size and splendor, the superb night-blooming *C. grandiflorus*. The flower began to expand at night, and was fully open at nine o'clock, and remained in bloom until the evening of the next day. The flower was upwards of six inches in diameter, and from the tips of the sepals fifteen inches. It has only flowered once before, we believe, in this country; this was at Mrs. Bigelow's garden, in Medford, about eight years since. Mr. Haggerston has informed us that the plant was struck from a small cutting about three years since, the parent from which the cutting was taken never having flowered. It stands in a pot, and is trained to the back wall of the stove, and has lately been grafted with a great number of species and varieties, as noticed by us in our last visit to this place, p. 348. It is a magnificent species, but its rapid growth and rare flowering prevent it from being cultivated in small collections, only as a stock upon which to graft other sorts. We suspect that this species requires some different management from the others. In its native habitats it is found running over trees, or anything which it can attach itself to, by its fleshy roots, which are thrown out upon their stems, flowering abundantly in its blooming season.—*Cond.*

*Seckel Pear.*—The *New Haven Herald* states that this delicious pear was a favorite of the early settlers of Connecticut, and is found growing wild[?] in the woods of that state. This contradicts the generally believed report that it originated on the farm of Mr. Seckel, from whence it takes its name, in Pennsylvania. We should be pleased to learn from some of our Hartford friends whether there is any foundation in the above statement of the *Herald*.—*Id.*

*Oxalis Bowiæ.*—This truly elegant species of *Oxalis* we have now in full bloom. Its long peduncles are each terminated with umbels of from five to seven beautiful deep rose-colored flowers, measuring in expansion about two inches. We also saw, a few days since, this species in bloom in the garden of J. W. Boot, Esq., of Boston. In one pot was thrown up more than a dozen stems of its blossoms, forming one of the most brilliant ornaments of the green-house at this cheerless sea-

son, when scarcely a flower is to be seen except the chrysanthemum. It deserves to be in every collection of plants. It is also a superb species for parlor cultivation, requiring but very little attention to bloom it in perfection.—*Id.*

*Fine Dahlias exhibited this season.*—At a late weekly exhibition of the Massachusetts Horticultural Society, at which there was presented a number of fine specimens of dahlias, some discussion arose respecting the merits of several of the new ones, which have, to use the common phrase, been sent out this year; and to set the matter at rest, so far as the opinions of the individuals present would do so, it was proposed to decide upon their qualities in the following manner:—the six disputed varieties were set aside; of these the most perfect formed one was to be selected first, the most beautiful show flower next, and the second best show flower the third. About ten cultivators were present, and the decision was as follows: The Marquis of Northampton and Juliet were considered the most perfect formed flowers, the opinions being equally divided between the two; the Conqueror of Europe was considered, by a majority, the best show flower; but the opinions respecting the second best were divided about equal between Mary Queen of Scots, Mary and Conqueror of Europe. We merely notice this decision to state our surprise at the opinions of those who considered the Marquis of Northampton superior to Juliet. As regards the *real* merits of these flowers, it amounts to nothing. In our humble opinion the Marquis of Northampton is excelled in form by a dozen other varieties: it always shows a hollow centre, which condemns it at once. Before the spring returns we shall have some observations to make upon these and other fine kinds.—*Id.*

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#### ART. IV. *Retrospective Criticism.*

*Errata.*—In our last number, in the Review of the *Journal of the Boston Society of Natural History*, two important errors occurred. In p. 383, line 10 from the bottom, for “number of scavengers” read “humbler scavengers”—line 2 from the bottom, for “desirous” read “denizens.”

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#### ART. V. *Massachusetts Horticultural Society.*

*Saturday, September 30th, 1837.—Exhibited.* Flowers: From S. Walker, dahlias, scarlet zinnias, *Verbena chamædrifolia*, *Gladiolus natalensis*, and a variety of fine pansies, among which were the following:—Rainbow, Miss Cushing, (a new seedling, and extremely beautiful,) Napoleon, Othello, Vulcan and Clio; also, fine bouquets. From S. Sweetser, a variety of flowers. From T. Mason, fine bouquets. From Hovey & Co., superb dahlias, among which were Princess Victoria, Marchioness of Tavistock, Mary Queen of Scots, Conqueror of Europe, Mary, Mrs. Broadwood, sulphurea elegans, purple Perfection, Lavinia, Bride of Abydos, Hermione, Gem, Rosa superba, Fisherton Rival, (true,) King Otho, Countess of Sheffield and Exemplar. From

D. McIntyre, dahlias, among others Angelina, Glory, Gem, Queen of Scots, Ariel, Beauty of Dulwich, Exemplar, Lavinia, Marquis of Northampton, and Juliet. From M. P. Wilder, a variety of dahlias, among which were sulphurea elegans, Conqueror of Europe, Marquis of Northampton, Gem, Mary, King Otho, Countess of Sheffield, Rainbow, Mrs. Broadwood, Queen of Scots, Angelina and Exemplar. From S. R. Johnson, dahlias, viz. Angelina, Lady Fordwich, Red Rover, Ariel, Queen Elizabeth, Clio, Rainbow, Duchess of Buccleugh and others.

Fruit: Sargent peach and two kinds of seedlings, both excellent, from E. M. Richards. Washington, Epine d'été, Raymond and Cabot pears, from R. Manning; the latter is a seedling from the brown beurré, raised by J. S. Cabot, Esq. of Salem; it is a great bearer and a good pear; (we should be glad to have some account of the tree which produces this fruit, from either of our friends, Messrs. Manning or Cabot.) Nectarines and black Hamburg and sweetwater grapes, from T. Mason. Imperatrice violet plums, from S. Pond. Pratt's fall greening apples, from Jacob Pratt of Sherburne; a native fruit, originated in that town, and said to compare well with the Rhode Island greening. Mogul summer pears, from F. W. Bird, Walpole; the largest weighed one and a quarter pounds. Sweetwater and white Frontignac grapes raised in the open air, from S. R. Johnson, very fine; also, black Hamburg grapes, raised under glass. Specimens of the following grapes were exhibited by Mr. Kenrick, received from John Carter, Richmond, Va., viz. Catawba, Herbemont's Madeira, and Norton's Virginia seedling; the latter is a most extraordinary bearer, and is thought by Mr. Carter to possess no equal, foreign or native, either for its fine qualities, productiveness, or for making wine; the berries are blue and very small, the clusters compact, and the juice rich and sweet.

*October 7th.—Exhibited.* Flowers: From Hovey & Co., Princess Victoria, Queen of Scots, Mary and Conqueror of Europe dahlias. From S. R. Johnson, a variety of dahlias.

Fruit: Jackman's melting, Bon Chrétien Fondante, Jalousie, Saunders's beurré, Bowdoin, Marie Louise, golden beurré of Bilboa, Autumn superb, Rousselette de Rheims, beurré de Comte de Fresnel, belle lucrative, Buffum, Naumkeag, verte longue, St. Ghislain and Remsen's Favorite pears, from R. Manning: the finest of these was the belle lucrative; the golden beurré was inferior; also, Coe's golden drop plum, and Quetche d'Italie or Italian prune. Golden Harvey, American nonpareil and Porter apples, from J. Warren. Brugnion nectarines and black Hamburg grapes, from T. Mason. Black Hamburg, white Frontignac and sweetwater grapes, from S. R. Johnson, the latter from the open air. Norton's Virginia seedling, Herbemont's Madeira and Catawba grapes, by Wm. Kenrick, from John Carter of Richmond, Va. Mammoth apples, from G. Oliver, Esq., Lynn.

*Read.*—Letters from Wm. Lincoln of Worcester and G. W. Brimmer, Esq. of Boston.

*Presented.*—One hundred copies of Hoare's *Treatise on the Vine*, by G. W. Brimmer, Esq.

Two samples of wine were tasted: one was made from the Catawba grape, and was very good; the other was made from Norton's Virginia seedling, and was superior; the latter the color of Port wine. They were from Mr. J. Carter's vineyard, in Richmond, Va.

At this meeting officers and committees of the Society for the ensuing year were elected.\* Votes of thanks were also passed to the Commit-

\* The principal officers are as follows:—E. Vose, Esq., President; E. Bartlett, J. Winship, T. Lyman, Jr. Esq., and J. Prince, Vice Presidents; R. T. Paine, Esq., Corresponding Secretary; E. Weston, Jr. Esq., Recording Secretary; S. Walker, Treasurer.

tee of Arrangements, for their services in arranging and decorating the hall for the annual exhibition.

J. L. L. F. Warren of Boston and Levi Thaxter of Watertown were admitted subscription members.

*October 14th.—Exhibited.* Fruit: Marie Louise pears, from J. Prince. Golden Harvey and other native apples, from J. Warren, Weston. Apples, from Mr. Clapp, South Reading. Henry IV, beurré Knox, Styrian, Marie Louise and Petre pears, from R. Manning: the latter is a very fine fruit; it originated in Bartram's Botanic Garden, Philadelphia, and some account of it is given, with a figure, in Loudon's *Magazine*, vol. VIII, p. 587. Pears and apples, from L. P. Grosvenor. Dix pears, from S. Downer. Marie Louise pears, from D. Davis, Esq., Plymouth. Columbia Virgoulouse pears, from New York, were presented by Wm. Oliver; they were not in eating.

*October 21st.—Exhibited.* Louis bonne (of Jersey,) Jalousie and Williams's double bearing pears, from R. Manning. Minot pears, from R. T. Paine, Esq. Seek-no-further apples, from J. Lincoln, Hingham. Urbaniste and Knight's (of Rhode Island) pears, and Quince, Lyscom, Brussels pippin and Pomme de niege apples, from S. Downer. Unknown apples, (from imported trees,) from J. Balch, Esq.; also, fine Isabella and sweetwater grapes. Boxford or Towne and red Ingestre apples, and peaches, from E. M. Richards. Louisiana grapes, (raised from seed by Mr. Dane of Roxbury,) from I. P. Davis.

#### ART. VI. *Fulton Market, New York.*

*Vegetables.*—Potatoes, per bushel: common, 31 to 38 cts; kidney's, 44 to 50; sweet, 75 to \$1. Turnips, per bushel, 44 to 50 cts. Beets, per bushel: long blood, 44 to 63. Parsnips, per bushel, 63 cts. Carrots, per bushel, 44 to 63. Onions, per bushel: white, 88 cts. to \$1; red, 88 cts. to \$1. Salsify, per dozen bunches, 50 to 75 cts. Squashes, per dozen, 50 cts. to \$1.25. Pumpkins, per dozen, 63 cts. to \$1.

Cabbages, per dozen: common, 31 to 50 cts; Savoy's, 31 to 50 cts; red, 75 cts. to \$1. Brocoli, per dozen, 63 cts. to \$1. Cauliflowers, per dozen, 63 cts. to \$1. Endive, per dozen, 12½ to 25 cts. Spinach, per half peck, 12½ cts. Celery, per dozen bunches, \$1.25 to \$1.50. Melongenas, per dozen, 37½ cts. to \$1. Tomatoes, per half peck, 18 to 25 cts. Peppers, per hundred, 50 to 75 cts.

*Fruit:* apples, per barrel: greenings, \$1.75; fall pippins, \$2; winter pippins, \$2; Newtown pippins, \$2; Spitzembergs, \$2.25; Ox apples, (probably the monstrous pippin,) \$2.25; common, \$1.50. Quinces, per hundred, \$1 to \$1.50. Pears, per half peck: Seckel, 75 cts; Virgoulouse, \$1 to \$1.25; beurré, 25; Bon Chrétien, 25 cts; common, 25 cts; pound, per barrel, \$2.25. Plums, per half peck: fruit gages, \$1. Grapes, per pound: Isabella, 6 to 12½ cts; Malaga, (foreign,) 50 cts. Cranberries, per half peck, 37½ cts. Lemons, per dozen, 37½ cts. Oranges, per dozen, 25 to 37½ cts. Citron Watermelons, per dozen, \$1.50. Cocoa-nuts, per dozen, 75 cts. Chestnuts, per bushel, \$5 to \$6.00.

*REMARKS.*—The markets have been well supplied, and a good demand for the first two weeks of the month; the last two weeks the demand has fallen off. All the common sorts of vegetables are abundant.

Tomatoes, peppers, melongenas, and Lima beans, are nearly gone. Brocoli is in good supply and of good quality, as is also celery, spinage, endive, &c. Apples are abundant, as are also Isabel la grapes, oranges, lemons and cocoanuts: of other fruits the supply is not so abundant.—  
Yours, J. H., Oct. 22, 1837.

## ART. VII. Faneuil Hall Market.

		From	To			From	To
Roots, Tubers, &c.		\$ cts.	\$ cts.	Fruits.		\$ cts.	\$ cts.
Potatoes, new :				Apples, dessert :			
Common, { per barrel, . . .	1 00	1 25		Common, { per barrel, . . .	1 50	2 00	
		40	50			75	1 50
Chenangoes, { per barrel, . . .	1 25	1 50		Russets, { per barrel, . . .	1 75	2 00	
		37½	50			1 00	1 50
Sweet, { per bushel, . . .	1 25	1 50		Baldwins, { per barrel, . . .	2 00	2 50	
		37½	50			1 25	1 50
Turnips, { per bushel, . . .	37½	50		Bellflowers, { per barrel, . . .	3 00		
		17	20			1 50	
Onions :				Fall pippins, per bushel, . . .	1 50		
red, per bunch, . . .	4	6		Pears :			
white, per bushel, . . .	1 25	1 50		Urbaniste, per dozen, . . .	37½	50	
Beets, new, per bushel, . . .	50	75		Dix, per dozen, . . .	37½	50	
Carrots, per bushel, . . .	50	75		St. Germain, per dozen, . . .	37½	50	
Parsnips, per bushel, . . .	75	1 00		Brown beurré, per dozen, . . .	37½	50	
Horseradish, per pound, . . .	12			St. Michael, per dozen, . . .	50	75	
Shallots, per pound, . . .	20			Wilkinson, per dozen, . . .	25	50	
Garlic, per pound, . . .	14			Striped green, per dozen, . . .	25	50	
Cabbages, Salads, &c.				Baking, { per barrel, . . .	4 50	5 00	
Cabbages, per dozen :						2 00	
Early, . . .	37½	50				25	50
Savoy, . . .	37½	50		Peaches, { per half peck, . . .	50	75	
Drumheads, . . .	75	1 00		Quinces, per bushel, . . .	2 50	3 00	
Red Dutch, . . .	75	1 00		Citron melons, for preserves, ea. . .	8	12½	
Cauliflowers, each, . . .	12½	25		Berberries, per bushel, . . .	75	1 00	
Brocolis, each, . . .	12½	25		Pine-apples, each, . . .	12½	25	
Lettuce, per head, . . .	8	10		Grapes, (hot-house) per pound :			
Beans, shelled, per quart :				Black Hamburg, . . .	50	75	
Common, . . .	10	12		White Chasselas, . . .	25	37½	
Celery, per root, . . .	8	12½		Isabellas, . . .	12½	20	
Tomatoes, per half peck, . . .	25			Cranberries, { per bushel, . . .	2 00		
Squashes and Pumpkins.						50	
Squashes, per pound :				Oranges, { per box, . . .			
Autumnal marrow, . . .	2					50	75
Lima, . . .	2	3		Lemons, { per dozen, . . .	37½	50	
Winter crookneck, . . .	1½	2		Cocoanuts, each, . . .	5	6	
Pumpkins, each, . . .	12½	20		Shaddocks, each, . . .	25		
				Chestnuts, { per barrel, . . .			
						4 00	5 00
				Almonds, (sweet,) per pound, . . .	12	14	
				Filberts, per pound, . . .	4	6	
				Castana, . . .	3	6	

REMARKS.—Just after the date of our last report cooler weather occurred, and during the first week of this month very severe frosts were experienced. Rain succeeded, but too late to be of any benefit. As might have been anticipated, the early frost considerably damaged the



late crop of potatoes. There have already been several arrivals from the eastward, with full cargoes; but in some cases a greater part have been frozen more or less; consequently, prices for a prime article remain firm, and for some kinds there is a more brisk demand: we stated that some shipments had been made for the southern market; but since then shippers are afraid to risk them, on account of their bad keeping. Beets and carrots are abundant, and prices lower. Parsnips have just been received, and the market is not yet fully supplied.

Cabbages, of the more common sorts, and Savoy, are tolerably plenty and very good; but drumheads are poor and withal quite scarce, the dry weather of August, as we had anticipated, having delayed their heading so late that the early frosts and cool weather of October have overtaken them before they have half completed their growth; prices are high in comparison with other years: red Dutch are tolerably plenty and very good. Brocolis and cauliflowers continue abundant and fine, and are to be had at very moderate prices. A few common sorts of beans yet come to hand. Some tomatoes are to be had, but they have, generally, been picked so long that they are rather inferior. Of squashes the stock is abundant: several tons of the autumnal marrow have been sold in the market this season, and they are now much sought for.

Apples generally are plentiful, particularly russets, which are very abundant; but Baldwins are exceedingly scarce: fine pippins and bell-flowers, from Philadelphia, are to be had. Pears are less plentiful than they have previously been; the later or winter sorts are not so much cultivated as the autumn ones; fine Dix, St. Germain's and Urbanistes have, however, come to hand in small lots; some excellent St. Michaels grown in the city command the price in our quotations: a few brown beurrés have been in the market: baking pears have been received mostly from New York, but few having been grown in the vicinity of Boston the past season. Plums are about gone. Peaches are still to be had, though of small size and inferior quality: they are brought in from the vicinity. Watermelons are gone. Berberries are tolerably plenty. Pine-apples scarce. Grapes plentiful: the stock of sweetwater is mostly from the gardens of the city, where they have been raised in the open air; good Isabellas are scarce. Quinces have been received of excellent quality. Oranges and lemons are scarce. No walnuts have come to hand. Chestnuts have been brought in, but in very small quantities; they readily command our quoted prices. Sales tolerably brisk, and some considerable quantities of vegetables and fruit have been shipped.—*Yours, M. T., Oct. 22, 1837.*

## HORTICULTURAL MEMORANDA

### FOR NOVEMBER.

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#### FRUIT DEPARTMENT.

*Grape vines*, in the green-house or graperie, will require the same attention as directed last month: keep the dried and yellow leaves picked off and the house as dry as possible. Give plenty of air, if in a grap-

ery, and if in a green-house as much as the other plants will admit of. If not done before, prune the vines of some of the superfluous shoots previous to their final pruning in December. Cover the border, outside, with about six inches of coarse manure, to prevent the frost from penetrating into it.

*Fruit trees* may yet be transplanted. Put a barrow of coarse manure around the base of the stem and over the roots, upon the approach of cold weather.

*Isabella and Catawba*, and other native grape vines, may now be pruned, if not done before.

*Sweetwater vines* should be protected the latter part of the month.

*Raspberry vines* should be laid down and covered this month.

*Strawberry beds*, newly planted, should be slightly protected.

#### FLOWER DEPARTMENT.

*Dahlias* should now be taken up: place them in a dry cellar, where the frost does not penetrate.

*Hyacinths* should now be planted in beds and pots.

*Tulips* should now be planted.

*Crocuses, Crown Imperials, &c.* should now be planted.

*Oxalises* may still be planted, if before neglected.

*Pæonies* may yet be set out with success.

*Gladiolus, ixias, &c.* may yet be planted in pots.

*Amaryllises, tuberoses and tiger flowers* should be taken up, if not done before.

*Seeds of rocket larkspurs, coreopsis, &c.* may now be sown.

*Schizanthuses*: repot the same plants again which were shifted last month.

*Mignonette*, in pots, should still be very carefully watered, or the plants will damp off.

*Chrysanthemums*: give these plenty of water while they are in flower.

*Bouvardia tryphylla*: the plants of this pretty flower should now be set away in a dry place in the green-house, and only watered once or twice a week.

*Amaryllises*, of the various hot-house and green-house species and varieties, should now receive but little water.

*Camellias* may be repotted now if they require it.

*Azaleas* should not be watered too often at this season.

*Geraniums*: repot those plants wanted for blooming early in the spring.

*Roses*, for forcing, should be immediately potted.

*Tree pæonies*: if these are wanted to flower in winter, introduce the plants now into the green-house.

#### VEGETABLE DEPARTMENT.

*Celery plants* should be well earthed up.

*Lettuce* should be now set out in frames for spring use.

*Onions*, sown for a spring crop, should be protected this month.

*Cucumbers*: if the fruit is desired early in February, the seeds should be immediately sown on a small hot-bed, with a brisk heat.

# THE MAGAZINE OF HORTICULTURE.

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DECEMBER, 1837.

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## ORIGINAL COMMUNICATIONS.

ART. I. *Notice of some rare and beautiful Plants growing in the vicinity of Plymouth, Mass.* By JOHN LEWIS RUSSELL, A. M., Prof. Bot. and Veg. Physiol. to the Mass. Hort. Soc.

THIS ancient town, with which we have so many pleasing associations connected with the early history of this country, is not less remarkable for the general information and kind hospitality of its inhabitants than for the peculiar and interesting flora covering its hills and surrounding the picturesque shores of its numerous ponds. In a delightful visit, during the past summer, for the purpose of botanizing, I was agreeably surprised in finding very many plants of rare occurrence elsewhere. I acknowledge with great pleasure the attentions of several individuals interested in science, by which I was enabled to collect specimens of much value, and to become acquainted with the locality and habits of others more common. One familiar with the scenery of Plymouth would scarcely expect to find much on its sandy shores and barren hills. But, like the sterling virtues observable in character, it needs only a more personal and minute research to be undeceived. Each month is productive of floral gems of no ordinary interest. Some of these I shall introduce to notice.

Attendant on the first steps of spring, the pretty trailing arbutus (*Epigæa repens* L.) is seen peeping from the midst of its faded foliage, and recalling to memory the adventurous "May-flower," after which it has been gratefully named. Like the snow-drop (*Galanthus nivâlis*) of old England, this hardy product of a more boreal clime comes even amidst lingering snows to greet the eyes of the earliest "culler of simples" and of the

lover of flowers. The old rock of Plymouth was garlanded with its sweet-scented gems last May morning, in celebration of that simple and rural custom in the mother country, of which a few traces are yet existent in our own.

In the rich meadows, during the early part of summer, the elegant *Rhinanthus Crista-galli*, or yellow rattle, may be found in the immediate neighborhood of the town. I have not been so fortunate as to see it in perfection. Its corolla, curiously spotted and marked, forms a striking contrast with its acutely serrated leaves.

Of the *Cistíneæ*, two species of *Heliánthemum*, *H. canadense* and *H. ramuliflorum*, and *Hudsonia tomentosa* and *ericoides*, are common.

On the borders of "Sound Pond," I found, in the short space of an hour, the pretty *Stachys hyssopifolia* *Max.*, a plant worthy of cultivation; *Gratiola aurea*, with occasional white flowers; *Sabbatia chloroides*, of colors from deep rose to pure white, giving to the spot a truly lovely aspect; *Coreópsis rosea*, *Lobelia Dortmanna* and *Solidago tenuifolia*, *Drósera longifolia*, and the curious *D. filiformis* *Raff.* The latter, which is said to grow in New Jersey and Delaware, by Beck, seems to be peculiar to this single and confined locality in this state; at least it is not described as found elsewhere, and I was assured that in no other part of Plymouth has it been observed. Its foliage consists of straight, filiform leaves, studded with beautiful glands and hairs of the same purple color as in the entire plant, while the circinate veneration which distinguishes the natural order is strikingly observable, giving to the young leaf the exact appearance of an unfolded frond of some fern. Its flowers are conspicuous for size, being very much larger than in *D. rotundifolia* and *longifolia*, of a dark purple, with obovate petals. A specimen was gathered, more than thirty years ago, from this identical locality, and forwarded to Professor Peck, then in the chair of botany at Cambridge.

This species attains considerable size; in some individuals the flower-stem and leaves being twelve or more inches long. The *Droseraceæ*, a small order, should be more cultivated as exceedingly interesting plants. They would grow with great facility on the borders of garden ponds, either in balls of sphagnum or on rotten stumps and logs. I have often noticed *D. rotundifolia* forming perfect colonies in the crevices of decaying timber partly immersed; while *D. longifolia*, on a wet and muddy soil, has covered the ground, in company with the almost anomalous *Marchántia polymórpha*. A viscous secretion, which constantly exudes from the glandular surfaces of the entire plant, has given to it the fanciful and not unapt name of sun-dew. *Sabbatia* could probably be cultivated with like success, by planting out the radi-

cal shoots, which are produced in abundance during the flowering season. Several of these have been forwarded to the botanic garden under the care of Mr. Wm. E. Carter, gardener, as an experiment in floral cultivation.

Upon the edge of the north shore I had the pleasure of meeting with *Pulmonaria maritima* L. A single plant of great size was in flower and seed, spreading its flat branches on the marsh. The entire aspect was of a glaucous hue and of peculiar beauty: flowers small, rosy purple. I had only seen a dried specimen before, from the vicinity of Eastport, Me., found, some years ago, by Dr. Ray of that town. The beach, which forms a safe and well-protected harbor, produced scarcely anything but the valuable beach grass, (*Arundo arenaria*), which secures the drifting sand; *Pisum maritimum*; *Arenaria peploides*. This narrow strip of loose sand, three miles in length, has been reduced to its present size from a wide and dense forest of pine, within the memory of the aged citizens of the place. To prevent the encroachments of the sand on the valuable harbor, it was found necessary to protect the inner side by strong frame-work, and by the encouragement of the growth of the *Psamma* or beach reed; so indebted is man to the seemingly feeble agency of the vegetable economy!

Among the *Orchidæ*, the showy *Habenaria fimbriata* and the delicate *H. blephariglottis* are abundant and conspicuous. *Malaxis liliifolia* is by no means rare. *Arethusa bulbosa* was found in the vicinity this last spring.

Of the *Asclepiadæ*, *Asclepias tuberosa* is to be mentioned; a native of such peculiar elegance and splendor as to have introduced it into almost every collection of merit.

The *Empetræ* are represented in *Empetrum nigrum*, which covers, in large patches, the sides of the hills.

The *Lentibulariæ*, of Richard, embrace, as local members of the order, the singular aphyllous and not decidedly aquatic *Utricularia cornuta*, beside the remarkable *U. inflata*, with versicular petioles, which buoys the flowers above the water, in which it floats independent of any root; and one specimen of *U. purpurea* now in my possession was lately found.

To the botanist and to the lover of picturesque scenery, this vicinity will be found interesting. The numerous limpid, miniature lakes, embosomed, as many of them are, in the midst of hills and groves—their flat, white and sandy shores, or else their rich alluvial margins, their headlands and fairy isles, afford, by their proximity to the town, sufficient inducements for a ramble or a ride. I am inclined to think that the flora of this part of our state, and even to the extremity of Cape Cod, needs a more scrutinizing examination, to reveal many rare and valuable species.

J. L. R.

## ART. II. On Forcing Asparagus. By E. SAYERS.

(Concluded from p. 365.)

*In this stage of forcing depends the success of the produce.* If too much bottom heat is given, with water and little air, the buds of the asparagus will start in a few days; and the consequence will be, that the stalks will be small and white, and will not possess that flavor which is natural to them:\* if the process is slow, by a moderate bottom heat and plenty of air, night and day, then the stalks will be stout, and will retain their natural flavor—therefore give plenty of air during the day; even take the sashes entirely off when there is no frost, and the weather fine; and at all times, in the early stage of forcing, give air during *night*: even if a little frost is on the surface of the bed in the morning, before the grass is started, it will do no harm. When the buds begin to push, which can be ascertained on examining the crowns of the roots, the bed may then have a good watering.

If the bed is losing heat, which it will probably be at this time, a lining may be applied of well worked horse manure and a portion of oak leaves. The principal object, after the buds begin to push, is to rather increase the bottom heat, and give as much air as possible, but do not let them be frozen at this stage, which would spoil their flavor.

When the stalks are ready for the table, they may be taken from the plant by pressing down the two fore-fingers close to the stalk, to the crown of the root, when it is to be clenched by them and wrenched from the crown.

Where old asparagus beds are to be taken up in the spring, the roots may be forced to good advantage. They should be covered with sea-weed, manure, or leaves, in the fall, to keep them from the frost. When the time of their forcing is at hand, prepare a bed as before directed; when, in order to receive the roots, uncover the beds and allow them to be frozen, slightly, on the surface, so that the roots can be undermined and taken to the bed in large pieces, as they grow together: put them on the surface of the manure and thaw the earth moderately. By following the method here described, the very best asparagus will be the result.

Yours,

E. SAYERS.

*Boston, November, 1837.*


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\* The most general error in forcing this plant, is, that its vegetative principle is started by too much heat when it is first planted; it is therefore slender—and after being kept in this state, close, it loses its color and flavor; it is therefore insipid and tasteless. The principal advantage of having this fine vegetable at the table at an early season is its fine appearance and peculiar flavor, which can only be obtained by slow process and plenty of air.—E. S.

## MISCELLANEOUS INTELLIGENCE.

ART. I. *Retrospective Criticism.*

*Marchioness of Tavistock dahlia*—in answer to the Conductor, (p. 430.)—Mr. Editor: In your last number of the *Magazine of Horticulture*, under the head of *Foreign Notices*, pages 429-30, we find the following statement:—

"*Metropolitan Society of Florists and Amateurs*.—This flourishing Society held its second show at Beulah Spa, on Thursday the 24th of August, 1837. It was one of considerable interest, and a large amount in premiums was awarded. Like all the shows of this Society, the specimens were remarkable both for their rarity and for the skill displayed in their cultivation. Upwards of twenty prizes were awarded for dahlias, the show of which, as early as this date, was very splendid. The most successful competitor was Mr. Widnall. His stand is stated to have been "truly beautiful," and the only winning one deserving the distinction of giving the names of the flowers. They were exhibited with the names attached, and obtained the gold medal: they were as follows:—

"Widnall's Lady Dartmouth, Marchioness of Tavistock, Juliet, Emperor, Paris, Perfection and Sir Walter Scott; Springfield Rival, Glory of the West, Dodds's Mary, Jeffrie's Triumphant, Exemplar, Nimrod, Apothecary's Lord Nelson, Metropolitan Perfection, Conqueror of Europe, Diadem of Flora, Girling's Suffolk Hero and Ruby, Shakspeare, Grant Thorburn, Queen of Trumps, Topaz and Sir H. Fletcher.

"A greater part of these flowers were exhibited at the annual exhibition of the Massachusetts Horticultural Society this season, and we are glad to notice that Widnall's Marchioness of Tavistock is one of the best, as it has been pronounced by some cultivators, who consider themselves as judges of the dahlia, as possessing about equal!! beauty with the Beauty of Cambridge. We blush to record such a decision of so extremely superb a variety; and we envy not the taste of those who think so little of it."

The last paragraph the subscribers consider as intended for themselves, from the fact that they had made some remarks, at the solicitation of the editor, respecting the dahlia var. Marchioness of Tavistock, a specimen of which was placed on the table of the Massachusetts Horticultural Society, on Saturday the 30th of September, by the Messrs. Hovey. Mr. C. M. Hovey represented the Marchioness of Tavistock as being one of Mr. Widnall's first-rate flowers—that the plant was received by them, Hovey & Co., late in the season—and that the specimen *was not a good one*. With these preliminaries we examined the flower, and compared it with the Beauty of Cambridge, to which we thought the specimen had a strong resemblance. We did not give our opinion on the comparative merits of the *two varieties*, but on the *two specimens* before us, nor did we say anything about equal beauty!!

The Marchioness of Tavistock may be, and probably is, a fine variety, but we should like to *see a good specimen*, before we endorse the declaration of the editor, and call it so "extremely superb a variety," (to which conclusion he has arrived,) because it was one among the many varieties that made up the "truly beautiful" winning stand of Mr. Widnall; and not from any specimen exhibited by himself or by other cultivators.

On the day above named, there was a general marking by the principal cultivators present, (in all ten gentlemen, including the Messrs. Hovey,) in the following manner:—

For the best formed dahlia,  
For the best flower, and  
For the second best do. flower.

The result of the above was as follows:—

For the dahlia of the best form—

Juliet received	4
Marquis of Northampton	4
Dodds's Mary Queen of Scots	1
Conqueror of Europe	1
	<hr/> 10

For the best flower—

Conqueror of Europe	7
Dodds's Mary Queen of Scots	2
Princess Victoria	1
	<hr/> 10

For the second best flower—

Mrs. Broadwood	4
Conqueror of Europe	2
Dodds's Mary Queen of Scots	2
Exemplar	1
Dodds's Mary	1
	<hr/> 10

Fine specimens were taken from the stands of several growers, and among others the Marchioness of Tavistock and *Princess Victoria* from the collection of the Messrs. Hovey. The *Princess Victoria*, the Editor has represented, during the whole season, as the best dahlia in this section of the country. The result was, that Mr. C. M. Hovey was the *only one* of the ten gentlemen who marked for his *favorite Victoria* as the best or second best variety; and the fair Marchioness of Tavistock, the "extremely superb variety," was passed over without receiving *his own*, or a single, mark of approbation. We did not "envy" his "taste," or "blush at such a decision."

As our opinions and remarks, given in confidence and friendship, have been the foundation of an attack on our judgment, in the columns of your Magazine, we respectfully request you to give this communication an insertion in your next number.

S. WALKER,  
MARSHALL P. WILDER.

Dorchester, Nov. 18, 1837.

We insert the above with much pleasure: we are always ready to correct any errors or misrepresentations which we may inadvertently make; and our columns are open to all who may take exception to any of our remarks.

In the present case we are not aware of having committed any error or made any misrepresentation; neither did we mention any particular individuals when speaking of the dahlia above particularly alluded to; but as the above gentlemen have seen fit to apply our remarks to themselves, and consider them an "attack" upon their judgment, we shall endeavor to see whether the attack has been unjustifiable.

The dahlia has now become so popular a flower, that there is scarcely a garden of any extent, or laying any claims to beauty, but what, in the proper season, is adorned with its gorgeous blossoms. Within the



few past years the new varieties have increased to a vast extent, and the perfection to which the flowers have attained has been as great as the number has been numerous. Before the dahlia became established among the florist's flowers it was estimated by its general appearance and beauty; soon, however, it was found necessary, the new varieties increased so fast, to establish some standard rule by which all the flowers were to be judged, in the same manner as hyacinths, tulips, carnations, &c. This was consequently done; and since the properties of the dahlia have been established, every bloom is, or should be, estimated by their conformity to them. This has generally been done; but in some instances flowers have been cultivated which do not possess scarcely one property of a fine variety. When such kinds get into cultivation it should be the duty of the conductor of a work like ours to make known such flowers, in order that the public may be enabled to know what are worth, and what are not worth, growing: in a like manner it is his duty to point out the comparative merits of new flowers, and to decide upon their superiority. So far as our humble opinion goes we have done, and always shall do so, in order that the floricultural community, especially those who are willing to rely upon our judgment, may be kept informed of the value of every new dahlia. We may differ from others in our opinion, but we have given too much attention to the cultivation of the dahlia not to profess some knowledge of a fine flower.

At the meeting of the Massachusetts Horticultural Society above alluded to there was presented for exhibition several dahlias, from a few cultivators. The meeting being thinly attended, some conversation ensued, among the cultivators present, and, as would naturally be supposed, upon the dahlia, it being about the only flower exhibited. The conductor, from among those of Hovey & Co. took the Marchioness of Tavistock, and, showing it to the above gentlemen, remarked that it was said to be one of the finest varieties that had been sent out by Mr. Widnall the present year, (dry roots selling for £10.) The conductor also remarked that it was a faulty bloom, (having some distorted petals,) but that, in all other respects, it was a fair specimen. With the Beauty of Cambridge in one hand and the Marchioness of Tavistock in the other, the two were compared, and the observation made was, that it *strongly resembled* the former, and, if our memory serves us, (for we did not think then of ever speaking of the decision,) that the Beauty of Cambridge was one which would be grown by them as soon as the Marchioness of Tavistock. This is the foundation of our remarks. All who saw the latter flower, and viewed it without prejudice, know that it is no more like the Beauty of Cambridge than the old Mountain of Snow is like Seaman's Clara, or Exemplar. There never could be a more apparent want of judgment, (not to mention taste.) The petals of the Beauty of Cambridge are stiff, irregular and blunt, nearly every flower showing a great eye, and the colors dirty white and dull purple, mottled and unevenly shaded into one another, without any distinctness. Not so with the Marchioness of Tavistock. The petals are round, slightly reflexed and pure white, exquisitely edged with the most beautiful rose, (a color with which no other dahlia is edged, except Gem,) and the flower never shows an eye. The bloom here alluded to possessed all these properties; but having been cut from a weak plant, set out as late as July 7, at which time it was but six inches high, one or two of the petals were irregular, which rendered it a faulty one—not a fault, however, to give it a "strong resemblance" to the Beauty of Cambridge, but one which led us to leave it out altogether in the markings referred to in the latter part of the above letter. Perhaps it may be here proper to remark, that it is an established rule with the Metropolitan Society of florists and amateurs, of London, that *one* bloom with a

*single* fault shall disqualify a *whole* stand, even if that stand contains a hundred. How then should Mr. C. M. Hovey give *his own* "mark of approbation" to a flower which he knew, and which every cultivator who pretends to be a judge of the dahlia *should know*, would, and did, disqualify it for competition. The question at issue is, *not* that the "fair" Marchioness of Tavistock was a better flower than *any* of the others which were marked against, but it is that it has not so "strong" a "resemblance" to the Beauty of Cambridge as to give the latter a preference! in cultivation. Nothing need have been said, after this, about equal!! beauty. Our remarks were not made because the Marchioness of Tavistock was not thought a dahlia superior to all the others, but because it should have been classed with one of such inferiority as the Beauty of Cambridge.

The latter part of the letter of Messrs. Walker and Wilder has reference to a subject of which we made no mention; but as they have seen proper to make an attack upon us, we shall briefly reply to their remarks.

It is there stated that the "Editor has represented the Princess Victoria during the whole season as the best dahlia in this section of the country." Were we to judge from the encomiums bestowed upon it at *every* show at which it has been exhibited, particularly at the annual exhibition, where it was the most attractive flower in the room, so much so that the Conqueror of Europe, Mary, Juliet, &c. and others equally fine, were scarcely thought of, much more sought out, it would be sufficient to bear us out in this representation. If we estimate it simply as a *show* flower it will fail for want of size; but if we judge it in any other manner, it still is *the* best dahlia in this section of the country. We spoke of it as the best because every flower, (which are abundantly produced,) upon the plant, is perfect and beautiful; while with such *show* flowers as Juliet and Mary Queen of Scots, not more than one in ten is fit to remain upon the plant. The markings for the dahlias cannot be considered as any test of their respective merits. For instance, Dodds's Mary received but *one* mark, while in England it has gained more prizes this year than any other dahlia. We subjoin the following list of prizes gained by the flowers, marked for, at the shows of *two* Societies only:

Dodds's Mary . . . . .	15	Conqueror of Europe . . . . .	5
Juliet . . . . .	10	Queen of Scots . . . . .	3
Marchioness of Tavistock . . . . .	6	Exemplar . . . . .	2

Here we see that the "fair" Marchioness of Tavistock gained more prizes than the Conqueror of Europe, which has been repeatedly stated, by one of the above gentlemen, to be the finest dahlia of the season; the Marquis of Northampton, which received the "mark of approbation" of *both* Messrs. Walker and Wilder, as being the *best formed* flower, has not, that we have yet learned, gained a *single prize* this season: we will not, however, again envy their taste, nor blush at such a decision, as that might be considered another attack upon their judgment.

We have extended these remarks too far; we shall have a few words to say on these same varieties when we hear further from the exhibitions in England. But we hope we have shown that, however severe our remarks were, they were made in strict justice.—*Cond.*

## ART. II. Exhibitions of Horticultural Societies.

We are sorry to state that our reports of the various Societies which exist in different parts of the Union are not so complete as we had hoped they would have been. Notwithstanding our notice upon the cover, and incidentally at other times, to our friends and correspondents, we have received only the full report of the Essex County Natural History Society and that of the annual meeting of the Pennsylvania Horticultural Society. The New York Horticultural Society, owing to the apathy of the members, were not able to get up an exhibition this year, as was feared by our correspondent, (p. 389.) This we were sorry to hear; and we regret to learn, very lately, that some of the most active members have already withdrawn their connection from it. From the Maryland Horticultural Society, at Baltimore, and the Columbian Horticultural Society, at Washington, we have had no information in regard to their exhibitions. It would have given us pleasure to have embraced the reports of these two Societies, with the others, in the present number, but we have been unable to do so.

It will be seen, that in the list of plants exhibited there are many new and rare articles, particularly at the exhibition in Philadelphia. There is also a very decided increase of fine specimens. Of dahlias the shows have never anything near equalled the display of the present year. Rich as they have been, however, we have no doubt they will be far surpassed next season. Mr. Buist has raised some fine seedlings, and Mr. Mackenzie, at Lemon Hill, formerly Mr. Pratt's; we have not seen any of those of Mr. Buist, but understand they are extremely fine. Some of Mr. Mackenzie's were exhibited at the Massachusetts Horticultural Society's annual show, and were much admired. Our readers will notice the very great number of hyacinths grown in Charleston, S. C.: we hope the same zeal will be manifested for this sweet flower in the Middle and Eastern States. The Essex County Society's shows have been attractive by the profusion of fine specimens of native flowers. Another season we hope our December number will contain the report of every Society in the Union.

*Essex County Natural History Society.*—Wednesday, June 5th, 1837. [We noticed this exhibition at p. 353, and gave the preliminary remarks of our correspondent and the names of some of the exhibitors: the following is the report of the plants and fruits exhibited.—*Cond.*]

*Garden Plants:* By Mrs. J. D. Treadwell, *Digitalis purpurea* and *purpurea* var. *alba*, Canterbury bells, scarlet trumpet honeysuckle, larkspur, roses, &c. &c. By Miss E. S. Peabody, roses, pinks, phlox, lychnis, &c. &c. By Miss A. D. Rogers, moss roses. By Francis Putnam, *Pæonia fragrans*, *Humei*, *Whitleji* and *Reevessii*; *Cactus* [*Cereus*] *apicatosissimus*, *Calceolaria* var. *grand Sultan* and roses, viz. yellow Noisette, Rivers's George IV, cabbage Provins, new beautiful Provins, Eclingerger, black merice, Goliath, Nigritienne, Welsh Provins, L'Obscurite, Premier noble, Lubec, negro panaché, Pluto, Suisse, Empress of France, Ventori's superb, Proserpine, gloriosa superba, noire, &c.; also, *alstroemerias* and larkspurs, *gladiolus*, *pyrethrum*, stocks, &c.

By Wm. F. Gardner, *Gladiolus natalensis*, *Calceolaria corymbosa*, *Mesembryanthemum*, *Geranium Compton*, *digitalis*, lilies, carnations, &c. &c. By Andrew Nichols, Danvers, lychnis, larkspur, honeysuckle, pinks, &c. &c. By Wm. P. Richardson, *Hyacinthus comosus*, *Geranium striatum*, *Draccephalum*, Prussian [?] larkspur, Canterbury bells, &c. By John M. Ives, roses, viz. Swiss, moss, Provins, Paris virgin, Bromley's favorite, &c.; also, pinks.

*Native plants:* By E. L. Page, *Antirrhinum Linaria*, [*Linaria liniflora*]

lia W.] *Lysimachia quadrifolia*, *Anagallis arvensis*, *Fris versicolor*, &c. &c. By H. Wheatland, *Azalea viscida*, *Ligustrum vulgare*, *Vaccinium macrocarpum*, *Rosa rubiginosa*, *Pyrula rotundifolia*, *Lysimachia quadrifolia*, *Melampyrum americanum*, *Kalmia angustifolia*, *Hypoxis erecta*, *Arethusa* [Pogonia R. Brown] *ophioglossoides*, &c. &c.

**Fruits:** By Andrew Nichols, Danvers, May Duke and seedling cherries. [Our correspondent will oblige us by giving us some information respecting this seedling, and also the one exhibited by Mr. Ives.—*Cond.*] By John Gardner, Roxbury russett apples. By John M. Ives, seedling cherries.

**Wednesday, Aug. 9th.—Garden plants:** By Mrs. J. D. Treadwell, *Scabiosa atropurpurea*, *Lysimachia quadrifolia*, *Dracoccephalum virginicum*, moss roses, nasturtiums, *Verbascum*, sweet peas, *Coreopsis*, &c. &c. By Francis Putnam, dahlias, viz. Douglas's Criterion, *Cedo nulli*, *Lutea maxima*, Countess of Liverpool, Lord Liverpool, Duchess of Buccleugh, &c. &c., *Gladiolus natalensis*, carnations, stocks, pinks, &c. &c. By J. C. Lee, *Gladiolus cardinalis*, *Nerium splendens*. By Henry Wheatland, dahlias, viz. Barrett's Susannah, Amanda and Beauty of Salem; also, *scorzonera*, stocks, &c. &c. By Wm. P. Richardson, *Coreopsis tinctoria*, *Dracoccephalum virginicum*, sweet and everlasting peas, seedling carnations, *centaureas*, pinks, &c. &c. By Wm. Young, poppies. By T. Prince, larkspurs, phloxes, &c.

**Native Plants:** By Wm. P. Richardson, *Cichorium Intybus*, *Prunella vulgaris*. By E. S. L. Richardson, *Orchis fimbriata*, *Prenanthes alba*, *Asclepias purpurascens*, *Chelone glabra*, *Clématis virginica*, *Glycine monoica* and *Apios*, *Lobelia pallida*, *Campánula perfoliata*, *Apocynum androsaemifolium*, *Pontederia cordata*, &c. &c.

There was exhibited two glasses containing fine specimens of honeycomb, from the apiary of Henry K. Oliver.

**Tuesday, Aug. 29, and Wednesday, Sept. 6.—Garden plants:** By Miss E. Gardner, *Crèpis barbata*, *Gladiolus natalensis*, *Ænothëra Lindleyana*, *Petunia phœnicea*, *Centaurea moschata* and *moschata* var. *alba*, *schizanthus*, &c. By Francis Putnam, dahlias, upwards of fifty varieties; also, *Gladiolus natalensis* and *floribundus*, *Amaryllis Belladonna* and Colvill's seedling, *Verbena Melindres* [*chamædrifolia* Swt.] *Alstromeria psittacina*, *Camellia japonica* var. *alba flore pleno*, *Centaurea suaveolens*, carnations, stocks, asters, &c. By J. C. Lee, *Gladiolus floribundus*, *Vallota purpurea*, zinnias, &c.

By W. W. Palfray, *Eschscholtzia* [*Chrysæis*] *californica*, *Salvia fulgens*, *Maloë grandiflora*, *Petunia phœnicea*, *schizanthus*, *chrysanthemums*, &c. &c. By Henry Wheatland, dahlias, several varieties, *Eschscholtzia californica*, *Cacalia coccinea*, *Crèpis rubra*, *Picridium tingitanum*, asters, stocks, &c. &c. By Wm. P. Richardson, *Dracoccephalum virginicum*, *Spiræa ulmaria*, *Lathyrus odoratus*, nasturtiums, larkspurs, &c. By J. Watson Andrew, dahlias, larkspur, candytuft, &c. By Geo. Driver, bouquet of dahlias.

**Native plants:** By H. Wheatland, *Gerardia flava*, *Clêthra alnifolia*, *Polygala sanguinea*, *Cichorium Intybus*, *Chelone glabra*, &c. By E. S. L. Richardson, *Lobelia cardinalis*, *Gnaphalium margaritaceum*, *Eupatorium perfoliatum*, *Centaurea nigra*, *Cuscuta americana*, *Glycine Apios*, *Solidago*, asters, &c.

**Fruit:** By Miss C. Baldwin, summer harvest apples. By Wm. Dean, black Hamburg and sweet water grapes. By Abel Houghton of Lynn, seedling plums. By E. Emerton, Prince's Imperial gage, green gage, Henri Quatre and Bartlett pears, summer pearmain apples. By Augustus P. Chamberlain, Bolmar's Washington plum. By J. C. Lee, skinless pears, Peters's golden yellow plum. By Wm. P. Richardson, Prince's Imperial gage, red gage, summer harvest apples. By Wm. S.

Roberts, pears. By John Gardner, Jenks's apples. By John Sanderson, seedling plums. By J. M. Ives, Italian damask and Bolmar's Washington plums.

*Vegetables:* By J. C. Lee and J. M. Ives, long green Southgate cucumbers.—P.

[We have been kindly favored with the following interesting account of a meeting of the Society, held at Bradford. We are extremely happy in being able to present so full a report of this Society, which we should have been unable to have done but for the attention of our friends. They will please accept our thanks for their kindness.—*Cond.*]

An exhibition of fruits and flowers, of the latter both native and cultivated, was held under the auspices of this Society, at Bradford, in the hall of the Merrimac Academy, on the 21st of September. The exhibition was rich and profuse, and manifested an increased zeal in the cause since a previous and similar one in the same place about two years ago. It has ever been the aim of the Society to diffuse a laudable and general taste in the community, and promote useful knowledge in the precincts of the county. There was a numerous concourse from the neighboring towns, and the agriculturists, as well as others interested in the cause, were represented. Fine dahlias were sent from various individuals. From F. Putnam of Salem, upwards of fifty splendid varieties. From several ladies of the village, bouquets of cultivated plants. Contributions of the treasures of the garden, from Newburyport, Haverhill, Rowley. Attached to the academy, under the superintendence of its instructor, Mr. S. Morse, is a small and elegant garden for the amusement and gratification of the scholars. Besides culling from its gaily attired borders, the young people had gathered the fair and wild flowers of the woods and fields, the gaudy gerardias, the brilliant asters, the inimitable fringed gentian, mosses of various species and beauty, the scarlet *Cenómyce coccifera*, the pendent and mournful *Ursula florida*, the curious *Marchántia*. Specimens of entomology, ornithology and conchology from several ladies and gentlemen.

Of fruits, we observed native grapes, from the culture of Rev. G. Perry, who has hitherto paid much attention to them. Pears, plums, melons, native seedling apples, from individuals in the neighborhood. Varieties and pure sorts of the valuable squashes and pumpkins. In the evening a lecture, on the advantages of the study of nature, was given in the meeting-house, by Dr. Andrew Nichols of Danvers, President of the Society, which closed this interesting day. We cannot but wish well to any institution so signally calculated to do good, and affect a salutary influence on the community.—S.

*Wednesday, Sept. 27th.*—The regular exhibition of flowers and fruits was held at this date, at their rooms in Salem. The long continued drought was very unfavorable to a full or very vivid display. Many superior dahlias were, however, exhibited from the gardens of Messrs. Putnam, Wheatland, Richardson, &c., and bouquets of flowers from several gardens in the city. We noticed fine specimens of *Zinnia violácea* var. *coccínea*, *Petúnia intermèdia*, *nyctaginiflora*, *Potentilla splendens*, *Chryséis crócea*, *Gladiolus natalénsis* and *floribúndus*, asters, stocks. The lately introduced and brilliant *Mimulus cardinalis* and the pretty little *Rudbeckia amplexicaúlis*, from the garden of Mr. J. L. Russell, were among other more familiar and older plants. We particularly recommend the former to the notice of florists. The plant from which the specimen exhibited was taken attained the height of four feet since July last, and has produced a constant decimal supply of large scarlet flowers. It was grown in the open border and watered profusely, giving a striking effect especially among other tall herbaceous plants. The foliage possesses the musky odor so observable in its more humble co-

species, *M. moschatus*. A curious hybrid could perhaps be raised by the cross impregnation of these two, so naturally allied to each other. We drop the hint for the benefit of some amateur in such matters.

Among the fruit were some fine pears—*Epine d'été*, from the garden of Augustus P. Chamberlain, and *Rousset de Rheims* and the *Ribston pippin* apple, from Dr. Wm. P. Richardson.—*L.*

[The following report of this meeting is from the same correspondent as those of the first date; but as it gives a detailed account of all the articles exhibited, we give it in addition.—*Cond.*]

*Garden plants:* By John Lewis Russell, dahlias, viz. Brown's *Ophelia*, Brown's *Desdemona*, Duchess of Buccleugh, Cambridge Rival, *Teucer*, King of whites, scarlet perfection, *Wilmot's superb* (?), Barrett's *Susanah*, Countess of Liverpool, *Triumph Royal*, *Picta formosissima*, sulphur yellow, Lady Fordwich and *Dennissii*; *Mimulus cardinalis*, *Rosa Lawrenceana*, *Zinnia violacea* var. *coccinea*, *Pelunia violacea* and *nyctaginiflora*, *Moluccella lavis*, &c. By Francis Putnam, dahlias, asters, stocks, *Gladiolus floribundus* and *natalensis*, &c. By Henry Wheatland, dahlias, asters, stocks, &c. By Wm. P. Richardson, dahlias, *Lathyrus odoratus*, *Antirrhinum*, *Coreopsis*, &c.

*Native plants:* By John Lewis Russell, *Sanguisorba canadensis*, *Gentiana sapouaria*, &c. By T. Prince, *Antirrhinum Linaria*, *Achillea Millefolium*, *solidago*, asters, &c.

*Fruit:* By Mrs. A. Peabody, pears. By Augustus P. Chamberlain, summer thorn pear. By Wm. P. Richardson, *Rousset de Rheims* and orange pears, *Ribston pippin* and baking apples.—*P.*

*Pennsylvania Horticultural Society.*—The tenth exhibition of this Society was held at the Masonic Hall, on the 20th, 21st and 22d of September, 1837, and great merit is due to the Committee of Arrangements for the splendor with which it was got up.

On entering the saloon, a large oval table was placed before you, filled with the choicest exotics from the tropics to the arctic circle. In the centre stood one of the beautiful palms of Ceylon, the *Latania borbonica*. A *Cypripedium insigne* (ladies' slipper,) from India, excited much curiosity, from the extreme resemblance of its flower to wax. It is believed to be the first introduced into this country; (there is another, the *venustum*, from India, but the greater part of this beautiful family are indigenous.) On the east and west of the centre table were circular ones, each crowned by a beautiful screw pine, the *Pandanus utilis* and the *P. spiralis*, surrounded by a vast variety of that beautiful flower, the dahlia, of every tint and hue. At the east end of the saloon was a semi-circular table, on which was a large plant of the *Astrapea Wallichii*, surrounded by beautiful exotics; at the west end was a corresponding table, with another palm, the *Latania borbonica*, and near it a very large plant of the *Crinum amabile*, in full flower, one of the liliaceous family; also the black and green teas, the black pepper, the camphor and cinnamon trees, with many of the choicest plants. The walls of the saloon were lined with tables, spread with beautiful plants. In one of the recesses was observed a most singular submarine production, from Singapore; it drew universal attention from its great size and appearance; it has received the appropriate appellation of *Neptune's wine-cup*; and near this was a frame-work, having the silk-worm in its various stages, from the recently produced worm to the finished cocoon. In the window recesses were displayed an immense number of dahlias. Near one of the east windows was a pyramid ten feet high, by A. Dryburgh, covered with various kinds of flowers, interspersed with evergreens. At one of the north windows was a beautiful architectural model of the United States Bank, by R. Buist, covered with a great variety of the finest flowers, and on the architrave stood inscribed in high

relief "*The Bank*;" the columns were covered with the petals of crimson dahlias, and the whole was one of the most beautiful fairy productions imaginable. On the opposite side there was an imitation of a tree ten feet high, by D. Maupay, covered with upwards of four thousand flowers of dahlias. On the ends of the branches were perched stuffed birds, of great beauty, and on the top a dozen of the finest plumage apparently in the act of perching, which had a fine effect. These artificial productions gave relief to the green shrubbery, and had a most pleasing appearance. Over the door of the north or banqueting room was a star of the first magnitude, by S. Reeve, of New Jersey, and was composed of dahlias and evergreens. Immediately within the room arose a triangular column sixteen feet high, constructed by the same hand, covered with dahlia flowers. Through the centre of this room ran a stage having three elevations of one foot each; on the first two were displayed a splendid variety of the choicest fruits of the season, tastefully arranged in glass dishes. The top was crowned with fine grapes in pots. This stage was flanked by flowers, plants in pots, and vegetables of the best kinds. Over the door, at the north end, was an imitation of the American eagle, composed of various kinds of flowers, to suit the plumage, the eye beautifully represented by a flower of the *Rudbeckia hirta*, strongly characteristic of the daring bird; the whole did Mr. Sherwood, the maker, great credit. On entering the room, notwithstanding the delicious fruits presented, the eye was suddenly arrested by two enormous pumpkins, one raised by Mr. John Wetherill, of Chalkley Hall, near Frankford, measuring in girth eight feet six inches, weighing two hundred and thirty-eight pounds; the other by Thornton Comfort, of Byberry, measuring in girth seven feet, weighing one hundred and eighty-eight pounds: they elicited great surprise. On one of the side tables was the *Nepenthes distillatoria*, or pitcher plant, from the East Indies, and the first exhibited in this country, being raised from seed by Mr. Buist; on the end of each leaf is a pitcher with a lid, which is elevated and depressed by circumstances; it is certainly one of the strange productions of nature, and excited much curiosity. Many of the exotics in this room were rare and beautiful; a very large *Critium amabile* in bloom, from the garden of George Pepper, Esq., was justly admired.

The rooms, when viewed from any point, presented a beautiful perspective, and it must have been highly gratifying to the Committee of Arrangements to have heard encomiums every where passed on them by the immense numbers who visited the hall, where the beauty, wealth and intelligence of Philadelphia were largely represented.

Some only of the finest and rarest plants exhibited are here enumerated.

*Plants contributed by J. B. Smith, Christian Street.*—*Astragalus Wallichii*, *mollis*, *viscosa*; *Ardisia littoralis*, *Adansonia digitata*, *Arawacaria imbricata*, *Annona tripetala*, *muricata*, *squamosa*, *palustris*; *Ardea montana*, *oleacea*, *Acrocomia aculeata*, *Banksia grandis*, *verticillata*, *ericaldes*, *pulchella*, *Cunninghamii*; *Beaufortia decussata*, *Beaumontia grandiflora*, *Bonaparteia juncea*, *Bréxia serratifolia*, *integrifolia*; *Cameraria latifolia*, *Carissa spinarum*, *Caryota urens*, *Catesbea spinosa*, *Cedrela odorata*, *Cérbera Thevetia*, *Cicca racemosa*, *Carolinea princeps*, *Coccoloba uvifera*, *Cocos nucifera*, *Combrétum purpureum*, *Corypha speciosa*, *Cunonia capensis*, *Cycas circinalis*, *Dillenia speciosa*, *Draecena ferrea*, *terminalis*, *brasiliensis*, *reflexa*, *marginata*, *australis*, *draco*; *Hura crepitans*, *Jacaranda filicifolia*, *Jacquinia*, *Jatropha multifida*, *Cúrcas*, *Mánihot*; *Latania borbónica*, *Laurus Camphora*, *Lawsônia inermis*, *Livistonia mauritania* [?], *Limonia trifoliata*, *pentaphylla*; *Myrtus Pimenta*, *acris*; *Pandanus utilis*, *spiralis*; *Parkinsonia aculeata*, *Phœnix dactylifera*, *reclinata*; *Poinciana pulcherrima*, *Pothos crassi-*

nérvis, Rhâpis, flabelifórmis, *Sabal* Adansóni, Sweitènia Mahágoni, *Tamarindus* indica, *Táxus* nucifera, *Thrinax* parviflora, élegans; *Terminalia Catappa*, *Xylophylla* longifolia, *Yucca* fol. variegata, *Zamia* hórrida, púngens, integrifolia; *Polypodium* aúreum, *Biza Orellana*.

*Plants exhibited by George Pepper.*—*Dracæna* purpúrea, terminális; *Zamia* hórrida, *Biza Orellana*, *Eugènia* austrális, *Musa* sapiéntum, *Terminalis Benzoin*, *Arèca* olerácea, *Livistonia* mauritánia[?], *Rhâpis* flabellifórmis, *Crinum* amábile, *Phœnix* dactylifera, *Cycas* revolúta, *Pitcairnia* aculeata, *Saccharum* officinàrum, *Manettia* cordifolia, *Tillandsia* *Bromeliæfolia*.

*Plants by R. Buist.*—*Cypripedium* insigne, *Nepenthes* distillatòria, *Euonymus* japonicus, fol. var. *Gardoquia* Hookeri, *Manettia* cordifolia, *Witsenia* corymbosa, *Lechea* *altia* formosa, *Crinum* amábile, *Cereus* splendens, [*Epiphyllum* splendidum,] *Russelia* júncea, *Banksia* Cunninghamii, *Torenia* scabra, *Erica* margaritacea, *Brunfelsia* americana, *Scottia* dentata, *Passiflora* *Kermesina*, *Boronia* serrulata, *Gesnera* *Douglasii*, rupèstris; *Thunbergia* fragrans, *Eupacris* impréssa, heteronema, *Hovea* pannosa, *Garrya* elliptica, *Verbena* *Tweediana*, *Ipomœa* *Horsfallæ*.

*By T. Landreth.*—*Bonaparteia* júncea, *Ròchea* falcata, *Ficus* elástica, *Laurus* *Cinnamomum*, *Magnolia* fuscata, *Pandanus* odoratissimus, *Ficus* nitida, *Thèa* viridis, *Banksia* microphylla, *Cunninghamii*; *Illicium* anisatum, *Citrus* variegata, *Corrœa* speciosa; *Coffea* arábica, *Ficus* costata, *Diósma* fragrans, *Justicia* picta, *Agapanthus* variegata, *Laurus* *Camphora*, *Coccoloba* uvifera, *Tabernamontana* coronaria, *Tarchonanthus* camphoratus.

*By John M'Arran.*—*A'gave* americana varieg., *Cycas* revolúta, *Olea* europeia *Mimosa* farnesiána, *Meliáanthus* major, *Eugènia* *Jambos*, *Arum* esculéntum, *Phormium* ténax, *Ruellia* salicifolia, *Zingiber* officinale, *Piper* nigrum, *Saccharum* officinàrum, *Coffea* arábica, *Ardisia* solanacea. *Ilex* variegata[?], *Erica* vulgaris, mediterranea; *Fuchsia* of different kinds, *Mespilus* japonica, *Taxus* chinensis, *Coffea* bengalensis, *Thèa* *Bohea*, viridis; *Ficus* elástica, *Nerium* splendens, *Olea* fragrans, melaleucas of different kinds, and a variety of roses.

*By Col. R. Carr.*—*Laurus* *Camphora*, *Quassia* amara, *Musa* rosacea, *Piper* nigrum, *Ceratonia* siliqua, *Ficus* elástica, *Coffea* arábica, *Phœnix* dactylifera, *Cycas* revolúta, cactus of various kinds, *Sapindus* saponaria, *Tabernamontana* coronaria, *Terminalia* *Benzoin*, *Thunbergia* coccinea, grandiflora, *Limonium* trifoliatum, *Zamia* púngens, *Tecoma* austrális, *Ginkgo* biloba, *Pdthos* lanceolata, *Pistacia* lentiscus, *Croka* punctata.

*By J. Sherwood.*—*Tillandsia* amœna, ligulata, *Bromeliæfolia*; *Erica* cerinthoides, urceolaris, ardens, calycina, *andromedæflora*, *Savileana*, ventricosa, verticillata, pubescens major, *Daphne* *Cnedrum*, neapolitana, oleoides, *Dauphina*, coleina, alpina; *Saxifraga* ligulata, *Manettia* cordifolia, *Russelia* júncea, *Eriocoma* fragrans, *Cotoneaster* microphylla, affinis; *Astræa* *Wallichii*, *Cactus* *Böydii*, murantina, conspicua, *Napiensis*, *Vandesia*, macrodiza; *Yucca* fol. variegata, yellow and white *rhododendrons*, *Cérbera* *Thevetia*, *Dillwynia* cinerascens, *Sutherlandia* frutescens; *Boronia* dentata, *Callistachys* ovata, *Menziesia* polifolia, rubra, alba; *Gesnera* bulbosa, *Alstromeria* aurantiaca, *Arum* crinitum, trilobatum; *Berberis* dulcis, *Nuttalia* papaver, *Doryanthes* excelsa; *Lechea* *altia* formosa.

*By Alexander Parker.* *Adiantum* trapeziforme, *A'gave* americana, *A.* variegata, *Albica* altissima, *Aloe* arborescens, maculata, saponaria, longifolia, discolor; *Asplenium* elatum, *Artemisia* dentata, *Arum* cordifolium, *Begonia* argyrostigma, macrophylla; *Cactus*, many varieties and species, *Chamærops* hystrix, *Cestrum* *Pargui*, *Ceratonia* siliqua,



*Diósma ericifolia*, *Edwardsia microphylla*, *Furcraea gigantea*, *Glariània? grandiflora*, *Illicium floridanum*, *Maurandya Barclayana*, *Olea europæa*, *Portulaca arborea*, *Paliurus aculeatus*, *Pistacia Terebinthus*, *Plectranthus fruticosus*, *Pomaderris apétala*, *Rivina humilis*.

By *Andrew Dryburgh*. *Bonapartea júncea*, *Correa speciosa*, *Blæria ericoides*, *Dracæna terminalis*, *Erythrina Crista-galli*, *Euphorbia splendens*, *Ficus elástica*, *Chironia grandiflora*, *Hæmáanthus pubescens*, *Ixora coccinea*, *Leucadendron argentea*, *Menziesia álba*, *Pittosporum viridiflorum*, *Thëa Bohëa*, viridis; *Tillandsia amœna*, *Roëlla ciliata*, *Viburnum tomentosa*, ericas of various sorts, proteas of different kinds, and a variety of roses.

Mr. Duke, the proprietor of the garden formerly Mr. M'Mahon's, contributed many fine plants. Mr. D'Arrus, near the Rising Sun, also furnished some beautiful exotics. D. Maupay, and D. M'Avoy, at the Rising Sun, Germanstown road, and Robert Kilvington, gardener to Wm. Lloyd, contributed largely from their gardens in fine bouquets. Mrs. Hibbert, Thirteenth Street, near South, whose establishment is well known to the ladies, has many fine plants, with a good collection of dahlias. Mr. Heiskel, near Bristol, Messrs. A. S. Roberts, and S. Cohen, of this city, deserve thanks for furnishing plants. Mr. C's figs were fine and large; the trees healthy; it being the second crop this season. The Society was much indebted to its fair friends for their imitations of flowers in wax and shells; Miss Gorges' shell-work exceeding any thing ever exhibited, and does her the greatest honor to taste and perseverance. The wax-work by Mrs. Shiba, Mrs. Ash, and S. W. Horn, was beyond all praise.

*Fruit*: The fruits in general were very good, much better than might have been expected, considering the unpropitious season for the finer kinds, such as grapes, peaches, and the melon family; the grapes exhibited by Mr. Beehler and Mr. Laws were of the best quality and perfectly ripe; these gentlemen deserve the greatest praise for their care in bringing the fruit to such perfection, and it is another evidence of what can be done in the city in cultivating the grape; indeed the whole exhibited were excellent, and the growers merit high approbation.

Grapes, exhibited by Dr. J. T. Sharpless, were the white Frontignac, the green and yellow Provence, and Chasselas of Fontainbleau. Malaga, by Tobias Beehler, Marshal Street, were the finest of the kind exhibited. By James Laws, the Fandanvert and Hanstretto were very fine, more especially when we consider the season; being grown in the garden. By J. H. Seal, the golden Chasselas; the Alexandria by H. Ballinger, John Sergeant, Esq., Alexander Parker and A. Peters; the Isabella by Alexander Parker and J. H. Seal; the Hampton Court by George Laws, Wm. S. Hansel, P. Penn Gaskill, Peter Robbins and Jos. S. Madeiry; the Powel by J. Sergeant, Esq.; the bland by do.; the Catawba by Mr. Heisser; the Ellensboro' by David Allan and A. Quicksale, Burlington, N. J.; the golden Chasselas, do.; the Miller by J. Griffiths. All the above were raised without cover.

Those by Nicholas Biddle, Esq., and Mr. Camac, were as fine as could be produced, more particularly so when we consider that the vines are only two years old, and growing in pots. Mr. B. has erected a very extensive grapery, and in a year or two will be able to supply the market with thousands of pounds of that luscious fruit. [We trust that this expression is altogether gratuitous on the part of the committee who drew up the report of the exhibition. We are unwilling to believe that a gentleman of the known liberality of Mr. Biddle is about to enter into competition with the regular market gardener in growing grapes, or any other fruit, for the market. Mr. Biddle is one of the greatest patrons of gardening in this country, as the rich collection of plants which

he has already made will bear good evidence. He has, too, one of the most extensive graperies in the Union. But that he has erected them with the view of producing fruit *for sale*, is what we are sure never entered his mind. The committee, therefore, do great injustice to Mr. Biddle in saying, that it is his intention to supply the market with "thousands of pounds" of grapes.]—*Cond.* He who introduces any scientific discovery, mechanical invention, or useful improvement for the benefit of mankind, deserves far higher praise than the blood-stained hero who figures in the page of history. Mr. Camac has caught the enthusiasm, and is building a large graperie; the public is indebted much to such men for their liberality, as they never can be remunerated for their expense.

The pears were excellent and large, giving another proof of what can be done if only care and a little more labor were bestowed by our farmers in their cultivation. The melons by Messrs. Jos. J. and Geo. J. Hatch, of N. J., and Jos. E. Scott, of Burlington, N. J., were very superior in size and flavor, and the Messrs. H. are entitled to all praise for the uniform excellence of their yearly display. Nutmeg melons by Mr. Riley, gardener to Pierce Butler, Esq., were very large.

Apples, by H. Hatch, Mr. Ralston, A. Lippincott, N. J., A. D'Arras, Horace Binney, Esq.; the pound pippins of J. Busby, N. J., were very large. Quinces, by Jacob Copia. Plums, by A. Parker. Peaches, extra fine, from Mr. B. Bullock's garden, North Third Street, Joseph E. Scott, Burlington, N. J., Mr. Alberger, Horace Binney, Esq., Reeves & Ridgeway, (Delaware,) John Sergeant, Esq., and J. B. Smith. Seckel pears, from H. Binney, Esq., Samuel P. Wetherill, Burlington, N. J., A. D'Arras, and Mrs. Hibbert. Butter pears, by H. Ballinger, Anthony Felton, and A. Parker. Doyenné pear, by J. B. Smith, Esq.

*Vegetables:* The vegetables generally merited the highest approbation, more especially those exhibited by Mr. Anthony Felton, showing the great care, perseverance, industry, besides great expense, before they could be brought to such perfection; never was there a finer display of vegetables.

Egg plants, by Edwin A. Stevens, Bordentown, Thomas Hancock, Burlington, N. J.; the above were very large; R. Ralston, of Mount Peace, Anthony Felton, Wm. Camac, Esq., and Thomas Heiskel. Cabbage, by D. Maupay; Wm. Norris, Turner's Lane, Jacob Amor, N. J., and Anthony Felton. Mangel wurtzel, by J. C. Jones and Casper W. Morris, Magnolia farm. Sugar beet, by Pierce Butler and P. C. Wetherill. Beets, by Wm. Norris, Turner's Lane, and A. Felton. Two very large ropes of very superior onions, raised from seed by Mr. E. Kelly, gardener at the United States' Naval Asylum, under the superintendence of Captain James Cooper, and also very fine by J. Beadle, gardener to Mr. Norris. Parsnips by Thomas Snyder, very fine. Some fine peas, by Abigail Pool, near Burlington, N. J. The following were deposited by Anthony Felton, and were of the very best quality, viz. chard, tomatoes of every variety, squashes, the Egyptian, the Maltese, the China, and the South Sea, brocoli, lettuce, Lima beans, carrots, parsnips, potatoes, celery, radishes of every kind, curled kale, peas, turnips, peppers of various kinds, and endive. There was some very superior celery by Francis Briell, N. J. Dahlias by Andrew Dryburgh, Robert Buist, Wm. B. Wood, S. Cooper, Horace Binney, Esq., J. B. Smith, Esq., T. Landreth, A. Parker, Mr. T. Heiskel, D. Maupay, Samuel Reeves, Salem, N. J., and some very choice kinds from George C. Thorburn, N. Y.

Of the above numerous gardens in and around the city, we may well be proud, and the country is materially benefitted by the Pennsylvania Horticultural Society, in exciting such laudable emulation among our

gardeners. The advantages possessed here are great—more so, perhaps, than in any other place in the Union, and we ought duly to improve them in cultivating horticulture in all its departments of beauty and usefulness.

Upon the whole, the exhibition, in all respects, gave more general satisfaction than any of preceding years. The Society has every reason to draw from its results motives of the highest encouragement for the future.

*Premiums.*—The committees in the different departments have awarded the premiums to the successful competitors at the tenth exhibition as follows:—

The committee on flowers award for the best twelve varieties of dahlias, a premium of three dollars to Robert Buist. For the best six varieties of dahlias, the premium of three dollars to Andrew Dryburgh. For the best American seedling parti-colored dahlia, a premium of three dollars to Robert Buist. For the best American seedling self-colored dahlia, a premium of three dollars to Robert Buist. A number of these were of the newest kinds lately imported from Europe, and were remarkable for their delicate tints and colors. Some fine kinds from the garden of George C. Thorburn, of New York, attracted the great attention of the numerous visitors, and for which the Society return him their thanks.

The committee on fruits award, for the best watermelons, the premium of five dollars to J. J. Hatch. For the best nutmeg melon, the premium of three dollars to Mr. Riley. For the best foreign grapes, the premium of three dollars to Tobias Beehler. For the best native grapes, the premium of three dollars to Isaac Meyer. For the best fall apples, the premium of three dollars to A Lippincott, of New Jersey. For the best peaches, the premium of three dollars to Benjamin Bullock. For quinces no premium is awarded, as no contributor furnished the requisite quantity; a few of extra quality were presented by Jacob Copia. An honorary premium to Nicholas Biddle, for a great display of foreign grapes, raised under glass. A premium of three dollars to John Smith, gardener to N. Biddle, for grapes in pots, with a full crop, plants only two years old.

An honorary premium to James Laws, for his very great display of native and foreign grapes.

For the best seedling pear, to John B. Smith the premium of three dollars; the committee named it *Smith's Pennsylvania Pear*: it is of the beurré or butter variety, is of extra merit, being both well-flavored and a great bearer. For the best pears, a premium of three dollars to J. B. Smith; this premium was overlooked in the prize list, but the committee deem it their duty to award it.

The committee on vegetables award for the best cabbage (drumhead,) the premium of three dollars to Jacob Amor. For the best carrots the premium of three dollars to Anthony Felton. For the best cabbage lettuce, the premium of three dollars to Anthony Felton. The committee also strongly recommend that an honorary premium of three dollars be awarded to each of the under-named gentlemen, (accompanied by a certificate,) as a mark of distinction for their perseverance and skill in bringing to such great perfection the articles attached to their names below, viz.

To John Wetherill, of Chalkley Hall, for a pumpkin weighing two hundred and thirty-eight pounds, and eight and a half feet in circumference. To John B. Smith, for four artichokes, extra fine. To Edwin A. Stevens, of Bordentown, N. J., for a number of egg plants, of two varieties, much superior to the ordinary quality. To E. Kelly, gardener to Captain James B. Cooper, of the Naval Asylum, for a

quantity of uncommonly large and fine Lisbon onions, raised from the seed. It is worthy of remark, that the garden of the Naval Asylum is in its infancy, and consequently cannot possess the advantages of those of longer standing, and that the onions were not produced in the ordinary way, from sets or small onions of the previous year, but from the seed. (*Journal of Belles Lettres.*)

*Horticultural Society of Charleston, S. C.*—This Society held its annual meeting on Tuesday and Wednesday, the 12th and 13th of July last, at the Medical College, Broad Street. An account of this meeting is given in the *Southern Agriculturist*. Since the anniversary of the Society, however, we have heard nothing of its exhibitions. We have repeatedly expressed a wish that some of our friends in that city would send us a report of the meetings of the Society, but as yet we are only able to give the following, which we extract from the *Agriculturist*: it is from the report of a committee of the Society:—

*Dahlias.*—The dahlias of the last summer did not equal those of the preceding year, although many beautiful and new varieties were introduced. In Mr. F. Naser's garden there still appeared to have been a larger number and greater variety of handsome flowers than were remarked elsewhere, and he is thought to be entitled to a premium for his successful cultivation of them. The finest that were seen in other gardens were those of Messrs. Bennett, Lucas, Howard, North, Webb, Moultrie, Bachman and Winthrop. Some of the dahlias of this spring have been fine, but the drought has injured them very materially. At Mr. Baker's some beautiful specimens were exhibited from the gardens of Messrs. Wotherspoon, Naser, Bancroft and others. One plant in Mr. Naser's garden produced a number of specimens, with two opposite centres, resembling two flowers adhering by their bases.

The winter and spring did not seem to be very favorable to the flowering of camellias, which were not generally fine, but some remarkably handsome and new varieties have been exhibited in fine perfection. The gardens in which they flourished best were those of Messrs. Lucas, Bennett, Patterson, Gonzalez, Michel, Schrieber and Guillemain. There was one belonging to Mr. Patterson exhibited at Mr. Baker's, which excited universal admiration. This was also the case with those of Messrs. Gonzalez and Michel, but it was thought that Mr. Lucas had the largest and finest collection of every other, for which he is entitled to the premium. The coldness of the spring was uncongenial to the full perfection of the bulbous roots.

*Hyacinths.*—The largest number of this beautiful plant, amounting to upwards of three thousand, was observed in the garden of Mrs. M. Davis, some of them very beautiful. Individual examples that were finer even than these, were seen in several gardens, and your committee was informed that there were many of an extraordinary beauty in Messrs. Edmondston and Lucas's gardens, but not until they had past bloom. They cannot, therefore, pass an opinion on them, and recommend the premium to Mrs. Davis.

In her garden there were some very handsome tulips, but those at Dr. Boylston's being equally as fine and much more numerous, entitle him to the premium. The roots in both these instances were saved from preceding years, and, according to the accounts received, were finer than at first. Those in Mr. Teasdale's garden would have been much finer, but for the lateness of the period at which they were planted. From this garden were exhibited the scarlet and yellow Crown Imperial.—One of the yellow variety also blossomed in Mr. Javain's garden. Your committee are induced to notice this plant, quite common as it is at the north, from the extreme rarity of its blooming in our city.

The beautiful ranunculus did not seem to have been cultivated as ex-

tensively as in former years, as your committee met with it but from two gardens, Messrs. Bennett and Salmond's. Both of these gentlemen had about twenty varieties. Mr. Bennett's were largest and most beautiful; they were from the garden of Tripet-Elireé, Paris. Mr. Salmond deserves, however, a notice for the attention he has devoted to this flower.

Your committee have to notice, with great satisfaction, the large number of roses which have been introduced and successfully cultivated during the past season. Mr. Michel is entitled to the praises of this body, for the great number which adorn his garden, one hundred varieties of which, he informs us, were shown at the spring exhibition. This gentleman, at great expense, has imported from France and elsewhere, the finest varieties; and the perfection to which he has brought them evinces a thorough acquaintance with the various modes of propagation, and shows his enthusiastic devotion to this class of plants. We award to him the medal for the largest collection and finest varieties of roses; also a medal for his very elegant rose, *La belle Huguenot*. It would be impossible to notice all the varieties grown in this garden, or that of Mr. Bennett, which has always been noted for the profusion and beauty of this flower. Mr. Howard, likewise, had many of surpassing beauty. The rose is so great a favorite, that there is hardly a garden which it does not assist to adorn. Our limits will only permit us to notice that there were many beautiful and choice roses in the gardens of Drs. Irving, Boylston, Moultrie and North; Messrs. Winthrop, Bentham and Ripley; Mrs. Talvande, Mrs. Davis, &c.

Many very beautiful pæonies blossomed this season, and it seems to become a very favorite flower: only a few years back it was remarkably rare to see a flower of this kind in our city. The handsomest single flower which your committee saw, grew in the garden of Mr. Gonzalez; it was the *Pæonia Motitan*, (tree pæony.) But Mr. Howard had the greatest number and largest flowers of the herbaceous kind. There were many very fine ones in the gardens of Messrs. Bennett, Bancroft, and Michel.

The carnations were not generally fine; indeed, they do not seem to deserve a medal this year. Some pretty ones were grown in the gardens of Mrs. Schrieber, Messrs. M. Strobel, Carroll, Dupont and Guillemain.

A rare and very beautiful native plant, the *Cordia Sebestina*, obtained from Florida by Dr. Strobel, and cultivated by him, bloomed for the first time in our city during the last summer; the committee recommend that a premium for the introduction of the handsomest cultivated native plant be awarded to Dr. Benjamin B. Strobel.

Dr. Winthrop exhibited a remarkably beautiful and rare *Rhododendron arboreum*, in luxuriant bloom; the plant was very large, and in a flourishing condition. This specimen he has cultivated in the open ground for three or four years, taking only the precaution of a slight protection from the heat of summer and cold of winter. He had also another beautiful *Rhododendron*. The committee think Mr. Winthrop entitled to the premium for the most beautiful flowering exotic.

Mrs. Schrieber had a most splendid specimen of *Cactus Jenkinsoni*, which continued in bloom for a long time, and was so beautiful that there was some doubt whether it or the *Rhododendron* was most entitled to the premium. Among other beautiful exotics we may mention the *Cactus speciosus*, *Lechenaúlia formosa*, (which is said to blossom nine months in the year,) of Mr. Bennett's. The *Plumièria tricolor* and others of Mr. Michel. Five varieties of *Azalea*, of Mr. Maynard Strobel, and the *Euphórbia Poinsettii*, of Messrs. Bennett and Gonzalez. In Mrs. Wagner's garden there was exhibited a very splendid collection of geraniums, *Agapanthus*, flowering myrtle, oleander and other exotics,

cultivated with the success and taste for which she has so long and so favorably been known to this Society.

From the experience of past seasons it appears to your committee, as this department is the most extensive, that their numbers should be increased to six, with such an organization as may be determined on, so as to render the labor less arduous, and the performance of the duties more certain.

The committee on fruits announce to the Society, that since the annual meeting in July last, fruits have been exhibited and reported to them as growing in the gardens of the following persons in this city, viz. Mr. Markley, residing in Meeting Street, exhibited peaches of fine flavor and large size, and the quantity on one tree fully justify his claim to a premium from the Society, for the best fruit of this kind exhibited. Mr. Gilfillen produced a few peaches of the same kind, which were considered scarcely inferior to Mr. Markley's.

The committee visited the garden on Holmes & Co.'s, late Mey's, wharf, where they saw a few trees with peaches and pears of good quality. Fine peaches were also reported to the committee from the following gardens, but which they had not an opportunity of witnessing, viz. Mr. C. Patrick, Mr. A. Whitney, Mr. Busacker, Mr. Francis, in King Street, and Mr. A. Taylor in Beaufain Street.

The finest grapes of different kinds were exhibited by the following persons, viz. Mrs. F. Rutledge, the Scuppernon, in great perfection. Mr. James S. Johnson, the Claret, of uncommon large bunches, and perfectly mature. Lionel H. Kennedy, Esq., the flame-colored, but by many supposed to be the grey grape, were remarkably fine. To each of these varieties the committee recommend a premium.

The only pears which came under their notice were from the plantation of Mr. Kinsey Burden, say three bushels of the pound pear; they had attained their full size, and were the best of the kind exhibited. The trees of Mr. Michel produced some good pears, but few in quantity. His red heart cherries were remarkably fine, and the quantity required by the Society from a single tree, justifying a premium, we recommend it to be awarded to him.

Mr. Guillemin produced the largest and finest quinces, not inferior to those cultivated in the Northern States, and fully deserving a premium. Mr. Michel's strawberries, were, as usual, very fine, but the quantity not sufficient to claim a premium.

The peaches and apricots in the gardens of Dr. Desel and Mr. Henry Horlbeck were considered remarkably fine, and would doubtless have been deserving a premium, if the quantity required by the Society had been produced.

Mr. Petit produced some English walnuts, which deserve the attention of this Society.

Miss Cripps, Mr. Michel, and Mr. Javain produced some large sized apples.

The committee regret that the names of the different varieties of fruit were not obtained; as they deem it essential, they recommend to the horticulturists in general to furnish the names of the fruits exhibited by them to this Society.

The following premiums are recommended for vegetables:—To Jas. Bancroft, for the best six heads of cauliflowers, a medal; to Mr. Noisette, for the best six heads of cabbages, a medal; to Paul Remley, for the twelve best red beets, a medal; to Col. Richard Yeadon, for the best twelve carrots; to J. F. O'Hear, for the best celery; to Col. J. Tan Rhyn, for the twenty-four best artichokes; to Dr. Charles Desel, for the twenty-five best silver onions; to Mr. Tobin, for the earliest and best half bushel of potatoes; to Mr. Hartmann, for the best bushel of spring Irish

potatoes; to Mr. MacLean, for the greatest variety of fine vegetables; to Mr. A. G. Rose, for the introduction of new varieties.

Premiums for vegetables being granted exclusively to those cultivated for sale—your committee cannot do justice to the amateur gardeners whose diligence, care and skill in horticulture merit the highest commendation and encouragement from the Society; Mr. William Mazyck, Mr. John Hume, Mr. Thomas H. Deas, Mrs. F. Rutledge, Mr. Joseph A. Winthrop, and many others, have vegetable gardens which would do credit to any country whatever. Indeed, the improvements in farming and gardening since the establishment of this Society, have been unquestionably very great. Whether this has in any measure been promoted by the patronage of the Society, or by an improving taste for horticulture and botany, coincident, in point of time, with this establishment, your committee felicitate the Society on the success which has attended their endeavors to promote these interesting pursuits, and on the bright prospects which present themselves of further improvements, more extensively diffused and more generally cultivated by all equally emulous for distinction.

### ART. III. *Massachusetts Horticultural Society.*

*Saturday, Oct. 28th, 1837.—Exhibited.* From R. Manning, Pope's Quaker, Cumberland, Styrian, and Bergamotte d'Automme pears; also, Alpha (received from the London Horticultural Society,) and Endicott pears, (a native,) and a seedling raised by J. S. Cabot, Esq., of Salem; also, several specimens of apples. From S. Pond, beurré Diel pears: presented by Mr. Pond, from the garden of Mr. Douglas of Cambridgeport, golden beurré pears. From Mr. Vose, the president of the Society, Wilkinson pears. From S. Walker, autumn Bergamot pears. From Mr. Oliver, Wilkinson pears. From J. D. Bradley, Brattleboro', Vt., a variety, supposed the old St. Michael of Doyenné blanc. From Dr. Joel Burnett, Southboro', Burnett pears, specimens of which have been forwarded to the Society three or four years in succession; these specimens were fine. From Samuel Phipps, Dorchester, apples, called the Philadelphia pippins, of very large size, but not ripe. From Wm. Kenrick, a variety of apples, received from E. Davis, of Webster, Mass.; Rev. H. Ramsdell, West Thompson, Connecticut, and Dr. J. Burnett, and Peter Fay, Southboro'. Rev. Mr. Ramsdell sent several specimens last season; his collection is quite extensive, and some of these were very excellent: the following are the names of the kinds sent by him:—Sweet-winter, Tift sweeting and white sweet, Pomme water, American apple, Winter Chandler, (a superior fruit, as we stated last fall,) winter greening, Nichols's sweet, Ramsdell's red sweet, Enfield pearmain and red pumpkin sweet, the latter an enormous bearer. Dr. Burnett sent fine specimens of the Lyscom apple, one of the best of apples. Yellow gilliflowers, by Mr. Davis, and Mill apples, from Mr. Fay.

*Nov. 4th.—Exhibited.* From Mr. Vose, specimens of the Duchess d'Angouleme pears. From S. Downer, specimens of the beurré Diel, Duchess d'Angouleme, Urbaniste, Dix, Cattilac, Bleeker's Meadow and Messire Jean pears; also, Pomme de Nieve apples. From E. M. Richards, Warden pears. From G. Brown, Medfield, sweet apples.

**From Mr. Clapp, South Reading, Platt's bergamotte pears, and another kind not named. From T. B. Coolidge, Boston, Doyenné blanc or St. Michael pears, (very handsome.)**

**ART. IV. Faneuil Hall Market.**

Roots, Tubers, &c.		From	To	Fruits.		From	To
	\$ cts.	\$ cts.			\$ cts.	\$ cts.	
<b>Potatoes, new :</b>				<b>Apples, dessert :</b>			
Common, { per barrel, . . .	1 00	1 25	Common, { per barrel, . . .	1 50	2 00		
	40	50		75	1 50		
Chenangoes, { per barrel, . .	1 25	1 50	Russets, { per barrel, . . . .	2 00	2 25		
	37½	50		1 00	1 50		
Eastports, { per barrel, . . .	1 75	2 00	Baldwins, { per barrel, . . . .	2 00	2 50		
	75	1 00		1 25	1 50		
Sweet, { per bushel, . . . . .	1 00	1 25	Bellflowers, { per barrel, . .	3 00			
	37½	50		1 50			
Turnips, { per bushel, . . . .	37½	50	Fall pippins, per bushel, . .	1 50			
	17	20	<b>Pears :</b>				
Onions :			Passe Colmar, per dozen, . .	25			
red, per bunch, . . . . .	4	6	Chaumont, per dozen, . . .	37½	50		
white, per bushel, . . . . .	1 25	1 50	St. Germain, per dozen, . .	50	75		
Beets, new, per bushel, . . .	50	75	Beurre Diel, per dozen, . . .	37½	50		
Carrots, per bushel, . . . . .	50	75	St. Michael, per dozen, . . .	50			
Parsnips, per bushel, . . . . .	75	1 00	Lewis, per dozen, . . . . .	25			
Horseradish, per pound, . . .	8	12	Messire Jean, per half peck, .	50			
Shallots, per pound, . . . . .	20		Baking, { per barrel, . . . . .	4 50	5 00		
Garlic, per pound, . . . . .	14			2 00			
<b>Cabbages, Salads, &amp;c.</b>				Peaches, { per dozen, . . . . .	25	50	
Cabbages, per dozen :				{ per half peck, . . . . .	50	75	
Savoy, . . . . .	37½	50	Quinces, per bushel, . . . . .	4 00			
Drumheads, . . . . .	75	1 00	Citron melons, for preserves, ea.	8	12½		
Red Dutch, . . . . .	75	1 00	Berberries, per bushel, . . . .	1 00			
Cauliflowers, each, . . . . .	12½	25	Pine-apples, each, . . . . .	12½	25		
Brocolis, each, . . . . .	12½	25	Grapes, per pound :				
Lettuce, per head, . . . . .	10	12	Black Hamburg, . . . . .	50	75		
Celery, per root, . . . . .	6	10	White Chasselas, . . . . .	25	37½		
Tomatoes, per dozen, . . . .	12½		Malaga, . . . . .	25			
<b>Squashes and Pumpkins.</b>				Cranberries, { per bushel, . . .	2 00		
Squashes, per pound :				{ per peck, . . . . .	50		
Autumnal marrow, . . . . .	2	3	Oranges, { per box, . . . . .				
Lima, . . . . .	2	3		{ per dozen, . . . . .	50	75	
Winter crookneck, . . . . .	1½	2	Lemons, { per box, . . . . .				
Pumpkins, each, . . . . .	12½	20		{ per dozen, . . . . .	37½	50	
			Cocoanuts, each, . . . . .	5	6		
			Shaddocks, each, . . . . .	25			
			Chestnuts, { per barrel, . . . . .				
				{ per bushel, . . . . .	4 00	5 00	
			Almonds, (sweet,) per pound, .	12	14		
			Filberts, per pound, . . . . .	4	6		
			Castana, . . . . .	3	6		

**REMARKS.**—Cool weather has again approached, and considerable snow, unusual as early as the 14th of November, has fallen. At this date the weather has moderated, the snow disappeared, and we have, to all appearance, the genial weather of Indian summer. How long it will continue we know not: in this most changeable of all climates



there is no certainty of two days of good weather together. If it continues fine the marketmen will be enabled to get in their crops in much better condition than if it is wet, or cold with snow.

Potatoes remain about the same: Eastern ones are poor this year, and the immediate vicinity is looked to for a supply of those of first quality: Eastports are very scarce, and, what there are, very inferior; sweet are most gone. Turnips abundant. Onions a good supply. Beets, carrots and parsnips a good stock. Horseradish now comes to hand of the first quality. Cabbages, of the common kinds, are plenty; but few drumheads and red Dutch are to be had. Of cauliflowers a very fair supply and of excellent quality. Brocolis also come to hand in sufficient quantity to supply all demands. Beans are gone. Lettuce scarce—small supply. Celery abundant and good; the red and white *giant* kinds are now taking the place of the poor sorts which have generally been grown for the market for several years. So prejudiced are marketmen against all *new* kinds of vegetables, that not one could be found who would make a trial, to any extent, of the red and white giant celery, without a *guarantee* from the seller that the grower should not be a *loser* by the undertaking! This does not speak much for the intelligence of our market gardeners. In a few years these kinds will be almost exclusively cultivated. A few tomatoes remain on hand, but they are a poor article. Prices of squashes have advanced a shade.

Of fruit there is a very good supply: apples are abundant and sales brisk; some considerable quantities have been taken for shipping. Pears are more abundant at this date than at our last; Paase Colmars and beurré Diels are to be had at very reasonable prices: some Lewis pears have been received, and they sold very readily at our quotations; this is a variety which will repay well for their cultivation: a few of the most beautiful St. Germaines we have ever seen have been received from the garden of Mr. Benj. Hanners of this city; they were never produced in greater perfection upon the original tree: some dozens of a variety called the winter St. Michael have also come to hand, from a cultivator in the vicinity; they are of handsome appearance. Quinces are very scarce. Berberries are nearly gone. There has been an arrival of Malaga grapes since our last, and the market has been well supplied, but the near approach of Thanksgiving has now much reduced the stock. The only walnuts that have come to hand have been received from Pennsylvania.—*Yours, M. T., Boston, Nov. 22d, 1837.*

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#### ART. V. Obituary Notice.

DIED, in the city of Boston, on the evening of Saturday the 10th of November, THOMAS GREEN FESSENDEN, Esq., editor of the *New England Farmer*, aged 65 years. His death was sudden; he attended a political meeting, held in Faneuil Hall, on the evening previous, (Friday,) but was seized with apoplexy immediately upon his return to his residence, and died on Saturday evening. We have long known Mr. Fessenden, and we deeply regret his loss, as a friend, as well as a co-laborer in the cause of agriculture and horticulture. Mr. Fessenden was a most amiable man, of a benevolent disposition, and was universally esteemed by all who had the pleasure of an acquaintance with him. From the first establishment of the *New England Farmer*

up to the present time, (fifteen years,) he has been the editor, and the respectable standing which that paper has attained has been mainly owing to his exertions. He has also, at the same time, compiled several works on agriculture and horticulture, the principal of which are the *Complete Farmer* and the *New American Gardener*, both of which have passed through several editions. Mr. Fessenden's literary attainments were of no common order: as the author of *Terrible Tractoration* and other poems, (first published in London, in 1803,) he has gained considerable reputation. This work, at the request of many of the author's friends, was republished but a year or two since, in Boston, with several additions, and had passed through a second edition just before his death. It is not within our province to speak of the work; but we may say, as one who has spent many a pleasant moment over this most humorous production, that for satire—true ironic satire—it is surpassed but by few compositions of the day. Some of his miscellaneous pieces, written for horticultural festivals and similar occasions, breathe the true spirit of poetry. His "course of culture" is familiar to every horticulturist.

We should be happy to give a more particular account of Mr. Fessenden's life, but we are unable to do so at this time.

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## HORTICULTURAL MEMORANDA

FOR DECEMBER.

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Very little is doing this month, in the garden, particularly where there is not a green-house or forcing-grounds attached. If the weather continues as it is now, (Nov. 22,) much can be done in the open air; but if cold weather should set in, with snow, nothing can be effected to any advantage. Now is the time to prepare for hot-beds, if early vegetables are wanted: let the frames and sashes be put in order and well painted; collect some proper compost together, and lay it in a heap, and cover it with leaves or straw, to prevent it from being frozen deep. Celery should be got in if not already done. Pruning vines and protecting fruit trees, raspberries, &c., can now be finished.

In the flower department there is still less to do: bulbs may yet be planted and perennials transplanted; some seeds may be sown, if open weather, as heretofore directed. A frame should also be put up, to protect some of the more tender plants which should be found in every good garden. Protect any rather tender plants in the border.

The green-house will require attention this month; give but little water and as much air as possible; keep the house clean and as dry as possible. Repot all plants that particularly require it, and propagate such as can be so done, where plants are wanted, at this season. Oxalis, and other bulbs coming into bloom, require considerable air and water.

In the hot-house repot all plants that require it, and particularly such amaryllises as now show signs of returning vegetation, after their season of rest. Fumigate often, to destroy lice, and keep every part of the house as clean as possible. Tie up and keep in elegant order every plant.

# LIST OF PLANTS.

<i>Abies Picea</i> 196	<i>Leuróthos floribunda</i> 344	<i>Azalea indica</i> var. <i>Gilling-</i>
<i>Acacia armata</i> 115. 174	<i>Anomatheca</i> 366	<i>hami</i> 72. 204
<i>conspicua</i> 174	<i>Anona</i> , 4 sp., 453	<i>ignescens</i> 72
<i>decurrens</i> 394	<i>Antholyza</i> 366	<i>phœnicea</i> 72. 105. 176
<i>longifolia</i> 28. 106. 115	<i>æthiopica</i> 367	<i>phœnicea elegans</i>
174	<i>montana</i> 367	72. 204
<i>lophantha</i> 72. 174. 394	<i>pratensis</i> 367	<i>Smithii</i> 72
<i>spectabile</i> 72	<i>Antirrhinum caryophylloides</i>	<i>coccinea</i> 72. 431
<i>suaveolens</i> 27		439
<i>verticillata</i> 28. 194. 196. 174	<i>glandulosum</i> 374	<i>lateritia</i> —probably a va-
<i>vestita</i> 174	<i>Linaria</i> 180	riety of <i>indica</i> 439
<i>Achillea Millefolium</i> 452	<i>Orontium</i> 180	<i>ledifolia</i> 103. 163
<i>Acrocomia aculeata</i> 453	<i>speciosum</i> 423	<i>nudiflora</i> 101. 411
<i>Actæa alba</i> 412	<i>Apocynum androsaëum</i> —a	<i>pontica</i> 371
<i>rubra</i> 412	syn of <i>Linaria linifolia</i> 442	<i>punica</i> —probably syn-
<i>Adansonia digitata</i> 453	459	onymous with <i>phœ-</i>
<i>Adiantum pedatum</i> 412	<i>Aptosimum depressum</i> 180	<i>nicea</i> 103
<i>trapeziforme</i> 454	<i>Arabis hispida</i> 412	<i>rubicanda</i> —probably a
<i>Adonis vernalis</i> 185	<i>Araucaria</i> 428	var. of <i>indica</i> 439
<i>Æsculus</i> , many sp. 403	<i>brasilensis</i> 401	<i>Rawsöni</i> 176
<i>Agapanthus umbellatus</i> 356	<i>excelsa</i> 401. 428	<i>viscosa</i> 101. 450
<i>variegata</i> —a variety of	<i>imbricata</i> 76. 453	<i>Babiana</i> 366
<i>A. umbellatus</i> 454	<i>Arbutus Andrachne</i> 306	<i>plicata</i> 367
<i>Agave americana</i> 454	<i>Uva ursi</i> 412	<i>striata</i> 367
<i>americana</i> var. <i>variegata</i>	<i>Ardisia acuminata</i> 27	<i>undulata</i> 108
<i>ta</i> 394. 454	<i>colorata</i> 394	4 sp. 367
<i>Agnostus sinuatus</i> —prob-	<i>crenulata</i> 185. 393	<i>Bambusa</i> 43
ably an error, as we find	<i>littoralis</i> 453	<i>Banksia</i> 401
no such genus in <i>Hort.</i>	<i>odontophylla</i> 178	5 sp. 453
<i>Bri.</i> 432	<i>paniculata</i> 402	<i>Cunninghami</i> 454
<i>Albica altissimum</i> 454	<i>solanacea</i> 454	<i>microphylla</i> 454
<i>Alétris fragrans</i> 402	<i>Arca borbonica</i> 403	<i>ensifolia</i> 431
<i>Allamanda cathartica</i> 104	<i>montana</i> 453	<i>marcescens</i> 431
<i>Allium</i> , sp. 233	<i>oleacea</i> 453	<i>marginata</i> 431
<i>cæpa</i> 349	<i>rubra</i> 401	<i>Beaufortia decussata</i> 394. 453
<i>proliferum</i> 349	<i>Arenaria peploides</i> 443	<i>Beaumontia grandiflora</i> 204
<i>Aloe</i> 403	<i>Arethusa bulbosa</i> 443	453
5 sp., 454	<i>ophioglossoides</i> —a syn.	<i>Begonia</i> 2 sp. 454
<i>margaritacea</i> 403	of <i>Pogonia ophioglos-</i>	<i>odorata</i> 371
<i>variegata</i> 433	<i>soides</i> 450	<i>platinfolia</i> 176
<i>Alonsoa facisifolia</i> 128	<i>Aracantha esculenta</i> 189	<i>Benthamia fragifera</i> 204
<i>integrifolia</i> 128	<i>Artemisia</i> 292	<i>Berberis dulcis</i> 454
<i>Aloysia citrodora</i> 386	<i>dentata</i> 454	<i>Bifrenaria aurantiaca</i> 298
<i>Alpinia nutans</i> 394	<i>Arum</i> , 2 sp. 454	<i>Biza Orellana</i> 454
<i>Aistromeria aurantiaca</i> 257	<i>cordifolium</i> 454	<i>Bleeria ericoides</i> 455
454	<i>esculentum</i> 454	<i>Blétia hyacinthina</i> 73. 104. 165
<i>Flora Martini</i> 257	<i>Arundo arenaria</i> 443	<i>Tankervillei</i> 104
<i>Palegrina</i> 257. 347. 355	<i>Asclepias salicifolia</i> 394	<i>Boitophyllum barbigerrum</i> 231
<i>peittachina</i> 257. 315. 450	<i>purpurascens</i> 450	222. 374
<i>pulchella</i> 257	<i>tuberosa</i> 356. 443	<i>coccinum</i> 346
<i>Amaryllis</i> 402. 432	<i>Aspasia variegata</i> 228. 232	<i>recurvum</i> 346
<i>Amaryllis</i> , 5 sp. 73	<i>Asplenium melanocaulon</i> 413	<i>salicifolium</i> 374
<i>Belladonna</i> 73. 347. 450	<i>elatium</i> 454	<i>tetragonum</i> 346
<i>crocata</i> 73	<i>Aster</i> 403	<i>Bonaparteæ gracilis</i> 403
<i>formosissima</i> 104	<i>Astrantia major</i> 317. 391	<i>juncæa</i> 206. 208. 453
<i>Johnsöni</i> 73. 208	<i>Astrapeia mollis</i> 207. 453	<i>Boronia alata</i> 194
<i>máxima</i> 431	<i>pubescens</i> 402	<i>dentata</i> 454
<i>peittachina</i> 106	<i>viscosa</i> 453	<i>serrulata</i> 276
<i>tricolor</i> 73	<i>Wallichii</i> 104. 112. 207	<i>Brassavola cordata</i> 229
<i>vittata</i> 73. 104	276. 393. 402. 452	<i>Brassica</i> 357
<i>Anagallis arvensis</i> 450	white var. 402	<i>Brézia</i> , 2 sp. 453
<i>Andróméda</i> 72. 403	<i>Azalea</i> 72. 403. 322	<i>madagascariensis</i> 104
<i>calyculata</i> 36	<i>calendulacea</i> 101	<i>Bromelia Kératæ</i> 402
<i>floribunda</i> , a syn. of	<i>indica</i> 422	<i>Brugmansia</i> , 104

<i>Bránia verticillata</i>	106	<i>Caméllia j. fasciculáris</i>	69. 204	<i>of Gilla coronopifolia</i>	115
<i>Brunfelsia americana</i>	454	<i>j. Fairlea</i>	204	<i>Carleae spinarum</i>	453
<i>grandiflora</i>	207	<i>j. florida</i>	133	<i>Carolina princeps</i>	453
<i>Burlingtonia candida</i>	230. 292	<i>j. Flóyi</i>	68. 99. 115. 127	<i>Caryota arena</i>	401. 453
<i>fragrans</i>	281		133. 165	<i>Cassia, sp.</i>	165
<i>rigida</i>	281	<i>j. fulgens</i>	204	<i>Catalpa</i>	403
<i>rubescens</i>	281	<i>j. fusca</i>	127	<i>Catnasetum cristatum</i>	260
<i>venusta</i>	281	<i>j. gallica alba</i>	127	<i>tridentatum</i>	260
<i>Caecilia coccinea</i>	450	<i>j. gigantea</i>	106	<i>Catesbea spinosa</i>	453
<i>Cactus, sp.</i>	138	<i>j. gloriata</i>	28	<i>Cattleya bicolor</i>	230
<i>6 sp.</i>	454	<i>j. gloria belgica—a syn.</i>		<i>Forbesii</i>	276
<i>nobilis</i>	205	<i>of gloria</i>	28	<i>intermedia—a syn. of</i>	
<i>Pereskia—a syn. of Pe-</i>		<i>j. gloria mundi</i>	204	<i>intermedium var. pal-</i>	
<i>reskia aculeata</i>	219	<i>j. Gonssônia</i>	204	<i>lidum</i>	230. 375
<i>peruvianus</i>	424	<i>j. Harrissoni</i>	125	<i>labiata</i>	230. 375
<i>speciosissimus—a syn.</i>		<i>j. Ho-acki</i>	127	<i>Loddigesi</i>	230
<i>of Cereus speciosissi-</i>		<i>j. invincible—a syn. of</i>		<i>Ceanothus azureus</i>	205
<i>mus</i>	402. 449	<i>punctata</i>	370	<i>Cedrela odorata</i>	453
<i>triangularis—a syn. of</i>		<i>j. imbricata</i>	69. 115. 206	<i>Ceratomyce coccifera</i>	451
<i>Cereus triangularis</i>	278	<i>j. imbricata alba</i>	125	<i>Centaurea moschata</i>	450
	348	<i>j. Kirtzi</i>	130	<i>var. alba</i>	450
<i>Caladium</i>	305	<i>j. Landréthi</i>	212	<i>nigra</i>	450
<i>bicolor</i>	204. 207	<i>j. Lindleyi</i>	107. 135	<i>suaveolens</i>	450
<i>esculentum</i>	484	<i>j. margarêtha</i>	127	<i>Ceratonis siligua</i>	454
<i>Calamopsis scabra</i>	316	<i>j. myrtifolia</i>	115. 196. 204	<i>Cératosa borealis</i>	419
<i>Calamus niger</i>	402	<i>j. ne plus ultra</i>	204	<i>Cértera Thévêta</i>	453. 454
<i>Calanthe, sp.</i>	408	<i>j. oxoniensis</i>	67. 68. 69	<i>Cereus flagelliformis</i>	336
<i>Calceolaria corymbosa</i>	449		135	<i>grandiflorus</i>	334. 434
<i>párida</i>	188. 181	<i>j. Palméri alba</i>	204	<i>jenkensoni</i>	307. 337
<i>Calla ethiopica</i>	115	<i>j. Parthoniæ</i>	431	<i>senilis</i>	462
<i>Calliopsis bicolor</i>	433	<i>Parks's rose stripe</i>	136	<i>speciosus—a syn. of Epi-</i>	
<i>var. atro-sanguinea</i>	349. 355	<i>j. pennsylvanía</i>	204	<i>phyllum speciosum</i>	337
<i>tinctoria var atro-san-</i>		<i>j. philadelpia</i>	203	<i>speciosissimus</i>	27. 206
<i>guinea, a syn. of bico-</i>		<i>j. pulcherrima</i>	67	<i>277. 307. 331. 335. 337</i>	355
<i>lor var.</i>	317	<i>j. punctata</i>	69. 196	<i>splendidus—a syn. of</i>	
<i>Callistachys ovata</i>	454	<i>j. Rawesiana</i>	115	<i>Epiphyllum splendi-</i>	
<i>Callistemon lanceolatum</i>	185	<i>j. revisa</i>	432	<i>dum</i>	454
<i>speciosum</i>	185	<i>j. Rosa mundi</i>	204. 370	<i>triangularis</i>	273. 338
<i>Camellia</i>	401	<i>j. Rosa sinensis</i>	69. 106		351. 454
<i>japonica</i>	368		135	<i>Vandesi—a syn. of Epi-</i>	
<i>200 var. enume-</i>		<i>j. rosea—a distinct vari-</i>		<i>phyllum Vandesi</i>	185
<i>rated 68. 69. 70. 71</i>		<i>ety from the old rosea</i>		<i>Cestrum Perqui</i>	454
<i>j. admirabilis</i>	415. 469	<i>or Middlemist</i>	125	<i>Chamelepe nexilis</i>	202
<i>j. alba flore pleno</i>	450	<i>j. Rosæ</i>	69. 204	<i>humilis</i>	207. 332. 401
<i>j. althæiflora</i>	69. 106. 133	<i>j. sanguinea</i>	127	<i>hyatrix</i>	454
<i>j. ardens superba</i>	184	<i>j. Sieboldi</i>	414	<i>palmaria—a syn. of C.</i>	
<i>j. aucubefolia</i>	133. 204	<i>j. speciosa</i>	67. 68. 114	<i>Palmetto</i>	
<i>j. augusta</i>	131		133. 204	<i>Chelone glabra</i>	450
<i>j. boottiana</i>	127	<i>j. speciosa of the French</i>		<i>Chenopodium Quinde</i>	186
<i>j. candidissima</i>	125. 204	<i>catalogues</i>	100	<i>Chimaphila umbellata</i>	419
	415. 439	<i>j. splendens</i>	134	<i>Chironia grandiflora</i>	455
<i>j. Chándleri</i>	67. 68. 125	<i>j. Stevenii</i>	127	<i>Chorizema ovata</i>	417
	370	<i>j. striata</i>	415. 431	<i>rhombæa</i>	165
<i>j. Clintonia</i>	127. 134	<i>j. Sweetii</i>	67	<i>Chrysæis californica</i>	253
<i>j. Clivæna</i>	69	<i>j. Sweetiana</i>	68	<i>compacta</i>	251
<i>j. coccinea</i>	204	<i>j. Traversi mutabilis ple-</i>		<i>crocea</i>	252. 253. 316
<i>— major</i>	499	<i>nissima</i>	134	<i>317. 422. 451</i>	
<i>j. Colvilli</i>	71	<i>j. tricolor</i>	369. 414. 415	<i>Chrysanthemum</i>	229
<i>j. compacta</i>	108. 135. 204		432	<i>Chysis aurea</i>	231. 232
<i>j. conchiflora</i>	135	<i>j. Triphosa</i>	69. 135. 139	<i>Chymocarpus pentaphyllus</i>	222
<i>j. — alba</i>	69. 71	<i>j. triumphant</i>	415. 439	<i>Cichorium Pnybus</i>	450
	135	<i>j. Vandesia</i>	204	<i>Cimicifuga foetida</i>	317
<i>j. — nova</i>	69	<i>j. Wardi</i>	127. 134	<i>Cineraria amelloides</i>	165
<i>j. concinna</i>	71. 136	<i>j. Weimaria</i>	67. 68	<i>maritima</i>	115
<i>j. conspicua</i>	206	<i>j. Wolbanki</i>	133	<i>3 sp.</i>	115
<i>j. corallina</i>	204. 429	<i>j. Willottii</i>	204	<i>Citræa tristic</i>	226. 238
<i>j. coruscans</i>	127	<i>j. Wrayi</i>	210	<i>Citrus decumana</i>	27. 298
<i>j. crassinervis</i>	136	<i>j. Woodsi</i>	69. 139	<i>variegata</i>	454
<i>j. delicta</i>	69	<i>maliflora</i>	68. 71. 163	<i>Clarkia</i>	241
<i>j. Dérni</i>	107	<i>reticulata</i>	27. 337. 429	<i>pulchella</i>	143. 144
<i>j. Doncklaeri</i>	69. 414		431. 432	<i>Clématitis bicolor—a syn. of</i>	
	415. 431	<i>Cameraria latifolia</i>	453	<i>cerulea</i>	257. 414
<i>j. Dorsetti</i>	69	<i>Campánula Lorreji</i>	316	<i>cerulea</i>	296. 414
<i>j. echpeis</i>	69. 370	<i>perfoliata</i>	450	<i>grandiflora</i>	296
<i>j. elegans</i>	135	<i>persicifolia</i>	315	<i>erecta</i>	316
<i>j. elegans londoniensis</i>		<i>alba plena</i>	315	<i>flammula</i>	256. 394
	415. 431	<i>Trachelium pleno</i>	316	<i>florida</i>	296
<i>j. Elphinstoni</i>	106	<i>Canna, sp.</i>	355	<i>flore pleno</i>	185
<i>j. excelsa</i>	206	<i>glauca</i>	434	<i>montana</i>	429
<i>j. eximia</i>	165. 429	<i>iridifolia</i>	434	<i>Sieboldi</i>	297. 414
		<i>Ceanota coronopifolia—a syn.</i>			

<i>Clématie virginica</i>	450	<i>turbinata</i> <i>Parak</i> a syn.	454	<i>Diósema fragrans</i>	454
<i>Cleome spinosa</i>	315, 356	of <i>C. flava</i> var. <i>lobata</i>	421	<i>Dipódium punctátum</i>	421
<i>Clerodendron</i>	403		219, 220	<i>Dodecatheon integrifólium</i>	180
specio-issimum	181	<i>viridis</i>	172	<i>Dólíchos puriens</i>	43
<i>Cléthra alniifolia</i>	356, 450	<i>virginica</i> . This and the		<i>Doryánthes excelsa</i>	454
<i>Clíanthus puniceus</i>	72, 204	<i>viridis</i> are syn. of		<i>Douglasia nivalis</i>	179
	388	<i>spatulata</i>	172, 299	<i>Dracæna</i> , 5 sp.	403
<i>Clintónia elegans</i>	177	<i>Crépis barbata</i>	450	7 sp.	452
pulchella	177, 419	rúbra	450	2 sp.	454
<i>Clívea nobilis</i>	205, 429	<i>Crinum amabile</i>	73, 104, 207	borealis—a syn. of <i>Con-</i>	
<i>Cobæa scandens</i>	316, 355		402, 452, 454	vallaria umbellata	419
<i>Cobúrghia striatífolia</i>	355	Broussoneti	402	<i>Dracocéphalum</i>	357, 449
<i>Coccíloba</i> , 5 sp.	402	scabrum	402	<i>virginicum</i>	415, 450
avifera	453	<i>Crócus vernus</i>	112	<i>Drósera filiformis</i>	442
<i>Cócos nucifera</i>	402, 453	<i>Cróton di-color</i>	402	longifolia	442
<i>Coffea arabica</i>	355, 402	flabelliforma	394	rotundifolia	442
	454	pictus	402	<i>Dryandra</i> , 11 sp.,	403
bengalensis	454	saligna?	393	cuneata	431
<i>Collinsia atrophylla</i>	302, 316	<i>Cunónia capensis</i>	453	longifolia	171, 431
bicolor	181, 429	<i>Cupressus disticha</i>	209	plumosa	431
<i>Combrétum purpureum</i>	104	<i>Cuscuta americana</i>	450	<i>Echinocactus</i>	331, 339
	348, 453	<i>Cycas circinalis</i>	309, 402	Eyrean	165, 331, 332, 339
<i>Convallaria umbellata</i>	412	revoluta	77, 308, 393	Ottobii	334
<i>Colvolvulus</i>	434		395, 402, 454	oxygonus	334
minor	302, 422	<i>Cyclamen persicum</i>	105, 274	<i>Edwardsia macrophylla</i>	455
<i>MU</i>	434	<i>Cymbidium ensifolium</i>	421	<i>Elate aylvestris</i>	402
panduratus	434	var. <i>estriatum</i>	421	<i>Elchrysium bracteatum</i>	294
paniculatus	434	var. <i>striatum</i> —a syn. of		<i>Empetrum nigrum</i>	36, 443
<i>Cóckia punctata</i>	454	ensifolium var. <i>estria-</i>		<i>Enkianthus quinquefolius</i>	28
<i>Corallorrhiza odontorrhiza</i>	412	tum	421	<i>Epacris grandiflora</i>	103, 106
<i>Corchorus japonicus</i>	171	xiphifolium	421		373, 432
<i>Córdia rosea</i>	442	<i>Cypripedium inaigne</i>	452, 454	heteronema	454
<i>Coreopsis</i>	450	<i>Cytisus collicus</i>	173	impressa	73, 373, 431, 454
rosea	442	<i>Laburnum</i>	173, 342	paludosa	103
lincória—a syn. of <i>Cal-</i>		coccineum	342	variabilis	373
llopsis bicolor	433, 450	purpureum	342	<i>Epidendrum emulium</i>	227
<i>Cornus canadensis</i>	411	<i>Dalibarda repens</i>	412	lucidum	226
<i>Cotonea speciosa</i>	124, 186	<i>Daphne</i> , 5 sp.	454	cuchileatum	276
	212, 455	odora	115	ensifolium—a syn. of	
<i>Corypha speciosa</i>	453	<i>Detarsa arborea</i>	355	Cymbidium ensifolium	421
<i>Cosmética rubra</i>	429	<i>Daviesia ulciga</i>	220	um var. <i>estriatum</i>	421
<i>Cotonaster</i>	300	<i>Delpuinium</i>	349	fragrans	227
affinis	451	var. <i>Barlowii</i>	250	nocturnum	345
microphylla	454	Ajacia	422	var. <i>latifolium</i>	345
<i>Craspedia glauca</i>	177	alpinum	250	Skinneri	226, 233
<i>Crateagus</i> , 3 sp.	172	<i>Barlowii</i>	250	<i>Epigæa repens</i>	312, 441
Arónia	229	elatium—this and the		<i>Epimedium</i> , 3 sp.	403
coccinea	219, 220	last syn. of <i>interme-</i>		macranthum	228
flava	219, 220	dium	340	<i>Epiphyllum Ackermannii</i>	185
var. <i>lobata</i>	219, 220	elatium <i>ALL.</i> a syn. of			331, 338, 402
glandulosa <i>Willd.</i>	229	montanum	250, 251	Jenkinsoni	331
glandulosa of <i>Willd.</i> <i>De</i>		elegans pleno	315	speciosum	331, 338
<i>Cand.</i> and <i>London</i>	172	grandiflorum	251, 317	splen-ndum	338
	299	hirsutum—a syn. of <i>mon-</i>		truncatum	272, 331, 338
var. <i>macracantha</i> .		tanum	218	Vandellii	351
The two last are syno-		intermedium	340, 369		331
nyms of <i>coccinea</i> <i>L.</i>	172, 299	var. <i>pallidum</i>	369	<i>Erica</i> , 10 sp.	454
<i>Crateagus glauca</i> , a syn. of		montanum	218, 251, 340	arborea	72, 108
<i>Stranvæxia glaucés-</i>		palmarifidum—a syn. of		ardens	177
<i>cens</i>	296	intermedium	340	baccans	105, 177
<i>heterophylla</i>	172	phoeniceum	250	caffra?	177
<i>macracantha</i>	172, 299	<i>Dendrobium pulchellum</i>	276	carinata	276
<i>microcarpa</i>	299	punctatum, a syn. of <i>Di-</i>		mammosa	316
<i>maroccana</i>	172	podium punctatum	421	margaritacea	454
<i>mexicana</i>	172	<i>Dichorizanda thyrsofolia</i>	163	mediterranea	103, 454
odoratissima	171, 172	<i>Dicksodia piloscula</i>	413	pubescens minor	105
<i>Oliveriana</i> <i>Bosc.</i> , a syn.		<i>Dictamnus fraxinella</i>	277		177, 393
of <i>Oxyacantha</i> var.		<i>Digitális glutinosa</i> —a syn. of		rubella—a syn. of <i>rubida</i>	
<i>Oliveriana</i>	220	<i>Rehmannia chinensis</i>	344		105
<i>orientalis</i> <i>Bieb.</i> , a syn.		purpurea	449	rubida	72, 105
of <i>odoratissima</i>	171, 172	var. <i>alba</i>	449	tubiflora	177, 393
<i>oxyacantha</i> <i>Loudon</i> a		<i>Dillenia speciosa</i>	402, 453	ventricosa	177
syn. of the following:		<i>Dillwynia cinerascens</i>	454	superba	177, 315
	172, 220	glycinifolia	341	vestita coccinea	177
<i>Oxyacantha</i> var. <i>Oliver-</i>		<i>Dionea muscipula</i>	204, 210	vilgaris	454
<i>iana</i>	220	<i>Diósema</i>	106	<i>Eriobotrya</i>	300
<i>platyphylla</i>	171	12 sp.	403	coriata	300
<i>pyrifolia</i>	171, 299	capitata	134, 165, 185	obtusifolia	300
<i>sanguinea</i>	299	ciliata	108, 124, 393	<i>Eriocoma fragrans</i>	454
<i>spatulata</i>	172, 299	ericifolia	455	<i>Eriophorum vaginatum</i>	411
<i>tanacetifolia</i>	171				

<i>Eriostemon brevifolium</i>	429	<i>Gladiolus</i> var. <i>pubibundus</i>	261	<i>Fris transtaganus</i>	184
<i>Erythrina Crista galli</i>	174	cardinalis	450	Both syn. of <i>alata</i> .	
200. 357. 394. 455		floribundus	450	versicolor	450
<i>pecta</i>	393	natalensis	349. 379	<i>Fxia</i>	366
<i>Escallonia illinita</i>	170	435. 449. 450. 451		capitata	185
montevideensis	170	pubibundus, a syn. of		crocata, a syn. of Tri-	
<i>Echscholtzia</i>	251. 422	the var. <i>pubibundus</i>	315	tonia <i>crocata</i>	368
Now altered to <i>Chrysis</i> .		<i>Glauriana grandiflora</i>	455	maculata	185
californica	252. 450	Gleditschia	416	viridiflora	185
crocea	183. 185	Gloxinia alba	285	<i>Ixora</i> , sp.	393. 402
Both species must now be		speciosa	393	<i>Banckia</i>	204
referred to <i>Chrysis</i> .		<i>Glycine Aplos</i>	356. 450	coccinea	455
<i>Eucalyptus</i>	401	monica	450	crocata	207
<i>Eucharidium concinnum</i>	341	Gnaphalium	41	<i>Jacaranda filicifolia</i>	453
<i>Eugenia australis</i>	394. 454	margaritaceum	450	<i>Jambosa Jacquinia</i>	453
<i>Jambos</i> , a syn. of <i>Jambosa</i>		Godetia vinosa	170	vulgata	31. 165
<i>sa vulgaris</i>	454	Gongora atropurpurea	276	<i>Jasminum odoratissimum</i>	497
<i>Eulophia macrostachya</i>	374	Goodyera discolor	73	Jatropha, 3 sp.	437
<i>Euonymus japonicus</i> fol.		repens	412	<i>Justicia pita</i>	454
varieg.	454	Gratiola aurea	442	<i>Kempferia</i> , sp.	393
<i>Eupatorium odoratum</i>	393	Habenaria biphariglotis	443	Kalmia	408
perfoliatum	450	fimbriata	412. 443	angustifolia	450
<i>Euphorbia</i>	343. 403	herbifolia	412	latifolia	36. 315
corollata	357	Habranthus Andersoni	345	Kennedyia coccinea	429
fulgens	221	gracilifolius var. Booth-		dilatata	429
<i>Jacquineaflora</i>	110	ianus	345	Kérria japonica	171
latifolia	402	robustus	345	<i>Lachenalia pallida</i> var. ce-	
<i>Poinsettia</i> , a syn. of		<i>Hemanthus pubescens</i>	455	rulea	304
<i>Poinsettia pulcherrima</i>		Hakea, 10 sp.	403	pendula	103
<i>Gra.</i>	116. 342	<i>Hedychium Gardnerianum</i>	356	quadricolor	115
<i>splendens</i>	221. 455	maximum	434	versicolor	185
<i>Eutaxia myrtifolia</i>	106. 175	<i>Hellianthemum canadense</i>	442	<i>Lælia anceps</i>	308. 431
pungens	175	ramuliflorum	449	var. <i>Barkeriana</i>	259
<i>Exostemma longiflora</i>	185	<i>Heliconia speciosa</i>	431	<i>Lantana chinensis</i>	402
<i>Ficus</i> , 3 sp.	409	<i>Heliotropium peruvianum</i>	377	rubra	402
costata	454	<i>Hesperomeles</i>	300	Sellowii	32. 123. 204
elastica	27. 402. 454	<i>Hesperantha</i>	366. 368	<i>La Peyroussia anceps</i>	184
macrophylla	31	<i>Hesperis matronalis</i> fl. pl.		<i>Lasthenia californica</i>	315
nitida	454	alba	277	<i>Lathraea borbonica</i>	452. 453
<i>Fraxinus</i>	403	<i>Hibbertia volubilis</i>	206	<i>Lathyrus odoratus</i>	450
<i>Fuchsia</i> sp. var. <i>grandiflora</i>		<i>Hiliscus filiflorus</i>	207	<i>Laurus Camphora</i>	453. 454
coccinea	205	<i>Rosa sinensis</i>	185. 355	cinnamomum	454
globosa	297. 394	splendens *	170	<i>Lawsonia inermis</i>	453
elegans	297	<i>Hippophae argentea</i> —a syn.		<i>Lechenalia Baxteri</i>	73
gracilis	298. 377	of <i>Shepherdia argentea</i>		formosa—identical, we	
macrostemma	297	rhamnoides	389	think, with <i>Baxteri</i>	
tendula	298	<i>Hoeckia stolonifera</i>	417	G. Don	73. 205. 454
Yodanis grandiflora	298	<i>Hovea Celsi</i>	174	<i>Lecotia</i>	256
<i>Furcraea gigantea</i>	454	pannosa	454	<i>Le'dum latifolium</i>	412
<i>Funkia alba</i>	392. 394	<i>Hoya carnosa</i>	316	<i>Leptosphon androsaceus</i>	
<i>Galanthus nivalis</i>	112. 441	<i>Hudsonia ericoides</i>	442	densiflorus	178. 301. 315
<i>Gallardia aristata</i>	307	tomentosa	442		301. 316. 429
bicolor	316. 422	<i>Hamea elegans</i>	393	<i>Leptospermum caeruleum</i>	205
pita	429	<i>Hara crepitans</i>	454	Leucadendron	41
<i>Gardenia pancea</i>	301	<i>Hyanthus comosus</i>	449	argenteum	393. 455
<i>Gardoula Hookeri</i>	182	<i>Hydrangea hortensis</i>	63	<i>Leucothoe floribunda</i>	344
205. 256. 314. 454		<i>Hypoxis erecta</i>	450	<i>Levistonia mauritania</i>	453
<i>Garrya elliptica</i>	454	<i>Iberia</i>	422	<i>Liatris squarrosa</i>	398
<i>Gaultheria hispidula</i>	412	<i>Ilex opaca</i>	36	<i>Lixistrum vulgare</i>	450
<i>Genista monosperma</i>	173	<i>Aquifolium</i> var. albo		<i>Lilium canadense</i>	416
<i>Geniana saponaria</i>	452	margitatum	394	cideum	432
arabica	225	variegata, probably a		philadelphicum	416
<i>Geranium Compton</i>	449	syn. of <i>L. Aquifolium</i>		superbum	416
stratum	449	var. albo marginatum		<i>Limonium en-atum</i> , a syn.	
The two last syn. of <i>Pe-</i>		<i>Illicium anisatum</i>	454	of <i>Cymidium ensifolium</i>	
<i>largonium</i> .		floricatum	206	var. <i>estriatum</i>	421
<i>Gerardia flava</i>	356. 450	<i>Inopsis tenera</i>	229	<i>Tankerville</i> , a syn. of	
<i>glutindosa</i> , a syn. of <i>Reh-</i>		<i>Ipomoea</i>	434	<i>Bleia Tankerville</i>	431
<i>mannia glutindosa</i>	344	<i>Horsfallia</i>	204. 454	<i>Limonia pentaphylla</i>	206. 454
<i>Gesneria</i> , 2 sp.	451	<i>Quamoclit</i>	110. 434		454
saucialis	224. 255	paniculata	348	trifoliata	453
latifolia	255	<i>Fris</i> —should be <i>Fxia</i>	366	<i>Linnæa bore-alls</i>	412
<i>Selowii</i>	224	<i>Fris</i>	349	<i>Liriodendron</i>	403
<i>Gilia capitata</i>	115	a'ata	184	<i>Littæa geminiflora</i>	402
splendens	178	chinensis	115	<i>Lodæa</i>	41
tenuiflora	178	microptera, a syn. of		cardinalis	450
tricolor	178	n'ata	184	nitida	76
<i>Ginkgo biloba</i>	454	pallida	277	<i>Lotæia Dortmanna</i>	442
<i>Gladiolus</i>	366	scorpioides	184	r'gens	348

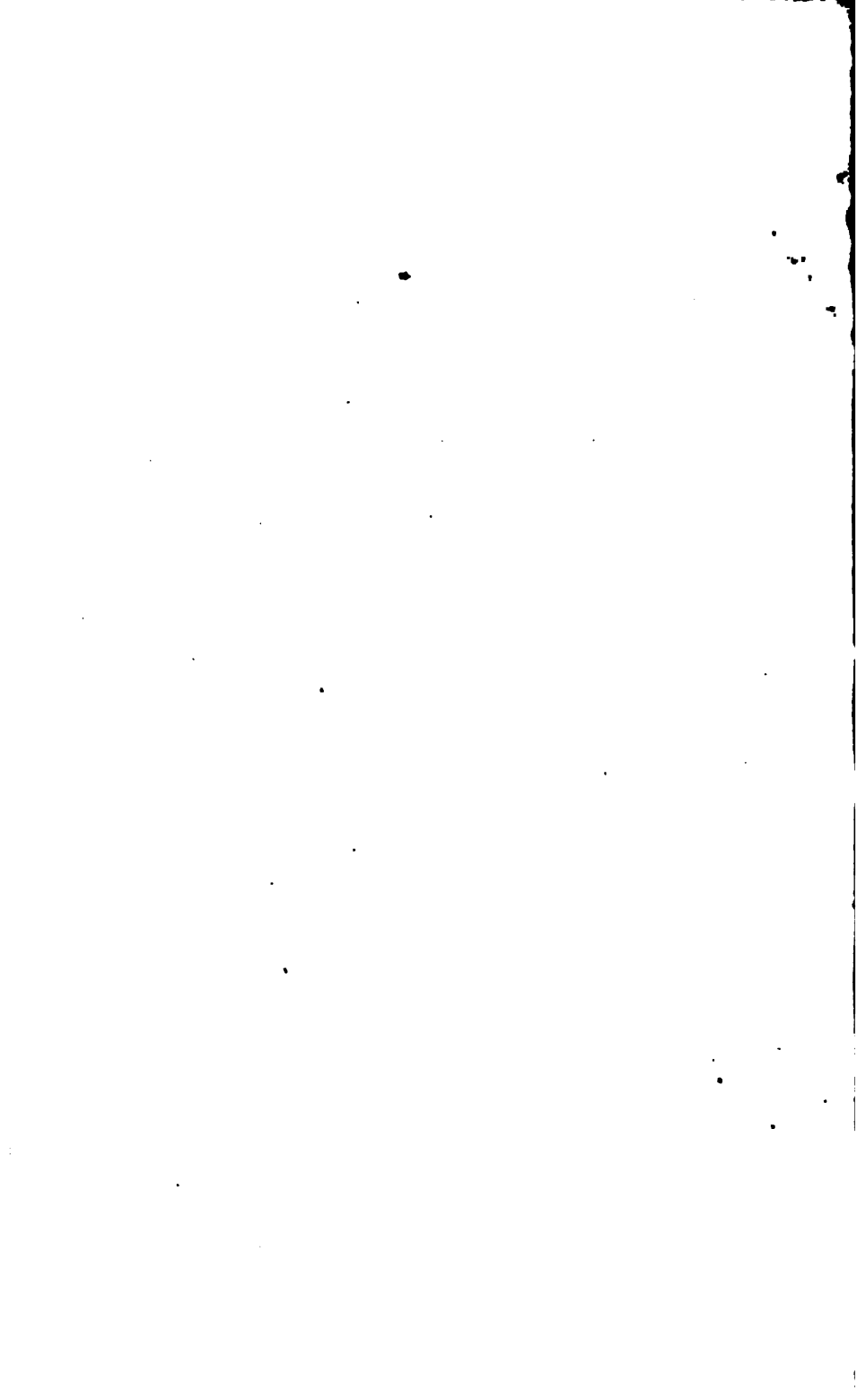
<i>Lobelia pallida</i>	450	<i>Morus nigra</i>	293	<i>Pæonia suffruticosa</i>	Mentical
<i>venosa</i>	372	<i>Morus multicaulis</i>	74. 76	with the <i>Moutan</i>	431
<i>Lonicera</i>	403		81. 236	<i>Pallurus aculeatus</i>	455
<i>chinensis</i>	394	<i>Macuna pruriens</i>	43	<i>Pancratium Amnense</i> , a syn.	
<i>Lophospermum erubescens</i>		<i>Muraltia</i>	417	of <i>Ismene Amnense</i>	183
	316	<i>Heisteria</i>	419	<i>calathinum</i>	256
<i>Lotus jacobinus</i>	393	<i>stipulacea</i>	419	<i>speciosum</i>	97
<i>Lapinus</i> , sp.	253	<i>Musa</i>	402	<i>Pandanus Amensis</i>	403
<i>Hellenicus</i>	253	<i>rosea</i>	454	<i>odoratissimus</i>	402. 454
<i>latifolius</i>	173	<i>sapiéntum</i>	454	<i>spiralis</i>	27. 306. 452. 453
<i>huoralis</i>	173	<i>Myanthus</i>	229	<i>utilis</i>	452. 453
<i>perennis</i>	417	<i>cristatus</i>	229	<i>Papaver bracteatum</i>	253
<i>polyphyllus</i>	173. 253. 315	<i>deltoides</i>	229	<i>orientalis</i>	253
var. <i>alba</i>	253	<i>Myosotis arvensis</i>	350	<i>Parkinsonia aculeata</i>	463
<i>rivularis</i>	173. 417	<i>Myrtus</i>	453	<i>Passerina</i> , sp.	393
<i>versicolor</i>	417	<i>Pimenta</i>	402. 453	<i>Passiflora</i> , 3 sp.	402
<i>Lychnis Bungeana</i>	293	<i>tomentosa</i>	393	<i>Kermesina</i>	104. 347. 454
<i>Floeraculi pleno</i>	277	<i>Nectarosordium siculum</i>	252	<i>quadrangularis</i>	163. 355
<i>Lysimachia quadrifolia</i>	316. 449	<i>Peranthus distillatoria</i>	204	<i>Pelargonium</i>	94
<i>Lythrum salicaria</i>	316		222. 452	var. <i>Bouganvilleanum</i>	
<i>Macaire aurantiaca</i>	36. 81. 212	<i>Nemophila atomaria</i>	225. 429		123. 175
	348	<i>insignis</i>	182. 183. 225. 303	<i>Compton</i>	115
<i>Madia elegans</i>	357. 394	<i>Nerine</i>	348	<i>quercifolium</i>	115
<i>splendens</i> , a syn. of <i>ele-</i>		<i>aurea</i>	348	<i>Pentstemon brevifolius</i>	255
<i>gans</i>	316	<i>corusca</i>	348	<i>heterophyllum</i>	180
<i>Maelenia</i>	421	<i>Nereum splendens</i>	317. 450	<i>Murrayanus</i>	180
<i>paradoxa</i>	403	<i>Nierembergia linearis</i> , a syn.		<i>speciosum</i>	180
<i>Magnolia</i>		of <i>Potamia intermedia</i>			
<i>conspicua</i>	165. 306	<i>Nolana atriplicifolia</i>	225	<i>Pereskia aculeata</i>	219. 351
<i>fusca</i>	394. 454	<i>prostrata</i>	392	<i>Pergularia odoratissima</i>	276
<i>glauca</i>	275. 315. 293	<i>Nuttallia cordata</i>	219	<i>Peristaria</i> , 3 sp.	303
<i>Malacia liliifolia</i>	443	<i>papaver</i>	454	<i>Potamia intermedia</i>	225. 451
<i>Melope trífida</i> var. <i>grandi-</i>		<i>Nymphaea cærulea</i>	348	<i>nyctaginiflora</i>	186. 451
<i>flora</i>	30. 450	<i>Oenothera Fraseri</i>	318	<i>phœnicea</i>	180. 393. 450
<i>Melva</i> , sp.	316		316	<i>violacea</i> , a syn. of <i>phœ-</i>	
<i>moschata</i>	30	<i>glauca</i>	422. 450	<i>nica</i>	452
<i>Manettia cordifolia</i>	454	<i>Lindleyana</i>	317	<i>Phacelia tanacetifolia</i>	182
<i>glabra</i>	204	<i>macrocarpa</i>	454	<i>vinifolia</i>	182
<i>Marchantia</i>	451	<i>Olea europæa</i>	165. 454	<i>Phlox</i> , 2 sp.	403
<i>polymorpha</i>	442	<i>fragrans</i>		<i>cærnea</i>	318
<i>Márcia humilis</i>	276	<i>Omphalodes</i>		<i>Drummondii</i>	301. 354
<i>semi-aperta</i>	276	<i>Oblendortia procumbens</i> , a		<i>356. 391. 394. 429. 433</i>	
<i>Mathiola annua</i>	75	syn. of <i>Aptosimum</i>		<i>paniculata</i>	433
<i>incana</i>	75	<i>depressum</i>	180	<i>Phœnix dactylifera</i>	165. 401
<i>Maurandya Barclayana</i>	75. 455	<i>Oncidium bifolium</i>	491		453. 454
<i>Megaclineum maximum</i>	304	<i>citrinum</i>	304	<i>paludosa</i>	403
<i>Melaleuca</i>	401. 403	<i>crispum</i>	228. 232	<i>reclinata</i>	453
<i>Melampyrum</i>	454	<i>flexuosum</i>	73. 258. 276	<i>Phlœdendron crassinervum</i>	
<i>Melastoma</i> , 3 sp.	394	<i>Harrisonianum</i>	228		304
<i>atomella</i>	104. 185	<i>tridifolium</i>	228	<i>Phormium tenax</i>	226. 454
<i>Meliánthus major</i>	454	<i>Lanceolatum</i>	227. 232	<i>Photinia</i> , 6 sp.	300
<i>Melocractus</i>	332	<i>lunatum</i>	228	<i>integrifolia</i>	298
<i>Méntha</i>	41	<i>Papilio</i>	431	<i>serculata</i>	394
<i>Menziesia</i> , 3 sp.	454	<i>Opuntia</i>	403	<i>Phycella brevifolia</i>	296
<i>alba</i>	455	<i>Orechia fimbriata</i>	450	<i>igneæ</i>	296
<i>globularis</i>	315	<i>Ornithogalum cæruleum</i> , a		<i>Phyllanthus grandiflorus</i>	402
<i>japonica</i> , a syn. of <i>Eri-</i>		syn. of <i>Scilla Cupani-</i>		<i>Picridium tingitanum</i>	450
<i>obotrya japonica</i>	454	<i>das</i>	232	<i>Pimelea decurata</i>	205
<i>Mesembryanthemum</i>	403. 449	<i>garganica</i>	421	<i>Piper nigrum</i>	355. 454
<i>Mespilus Michauxii</i> , a syn.		<i>latifolium</i>	420	<i>Pistacia lentiscus</i>	455
of <i>Crataegus flava</i> var.		<i>maximum</i> , a syn. of <i>lat-</i>		<i>Teretanthus</i>	454
<i>lobata</i>	219	<i>folium</i>	420	<i>Psium maritima</i>	443
<i>Metrosideros</i>	401. 403	<i>Osmunda cinnamomea</i>	413	<i>Pteris aculeata</i>	454
<i>semperflorans</i>	106	<i>Oxalis</i> , sp.	431	<i>Pittosporum viridiflorum</i>	453
<i>vera</i>	276	<i>Powiei</i>	434	<i>Platananthera orbiculata</i>	412
<i>Mitonia spectabilis</i>	421	<i>crenata</i>	188	<i>Plectisigma lineare</i>	297
<i>Mimosa</i>	402	<i>rosea</i>	73	<i>Plectanthus fluctuans</i>	455
<i>farnesiana</i>	454	<i>Pæonia</i> , 43 sp. and var.	284 to 269	<i>Pleurathallis saurocephala</i>	374
<i>Mimulus</i> var. <i>Marshalli</i>		<i>albiflora</i> var. <i>fragrans</i>		<i>Plumago rosea</i>	104
<i>new red</i>	181		210. 315. 449	<i>Poronia</i>	450
<i>cardinalis</i>	113. 181	<i>Humei</i>	316. 419	<i>Poinciana pulcherrima</i>	97
2 5. 302. 373. 451		<i>Reevesii</i>	343. 449		116. 453
<i>grandiflora</i>	316	<i>Richardsoni</i>	315	<i>Poincisia pulcherrima</i>	73. 110
<i>luteus</i> var. <i>variegatus</i>	373	<i>Whitaji</i>	315. 449		116. 123. 291. 342
<i>moschatus</i>	452	<i>Moutan papaveracea</i>	104	<i>Polemonium cæruleum</i>	277
<i>Smithii</i>	181		107. 380	<i>Polygala cordata</i>	431
<i>Moluccella lewis</i>	423	var. <i>fankala</i>	74. 104	<i>Heisteria</i> a syn. of <i>Mu-</i>	
<i>Monacanthus</i>	260		107. 115. 291. 380	<i>raltia Heisteria</i>	419
<i>hirsuta</i>	431	<i>Rawesi</i>	76. 107	<i>puscifolia</i>	411
<i>viridis</i>	260	<i>rosea</i>	107	<i>sanguinea</i>	450
<i>Mormodes</i>	260			<i>stipulacea</i> , a syn. of <i>Mu-</i>	
				<i>raltia stipulacea</i>	419

<i>Polypodium aureum</i>	454	<i>Ribes glandulosum</i>	411	<i>Pilea stipendula</i>	316
<i>corcovadense</i>	424	<i>niveum</i>	108	<i>fl. pleno</i>	277, 316
<i>Pomaderris, sp.</i>	124	<i>Rivina humilis</i>	455	<i>japonica</i>	
<i>apétala</i>	455	<i>Robinia</i>	390	<i>ulmaria</i>	450
<i>Pontederia cordata</i>	450	<i>pseudacacia</i>	389	<i>Spiranthes bracteosa</i>	231
<i>Portulaca arborea</i>	455	<i>Rochea falcata</i>	454	<i>Stachys</i>	41
<i>Potentilla fruticosa</i>	125	<i>Rodanthe Mangläsi</i>	177	<i>byssopifolia</i>	442
<i>glandulosa var. incisa</i>	370	<i>Ruellia ciliata</i>	455	<i>Stackhousia monogyna</i>	175
<i>splendens</i>	451	<i>Rondeletia odorata</i>	177	<i>Stanleya grandiflora</i>	276
<i>tridentata</i>	411	<i>speciosa, a syn. of edo-</i>		<i>Stapelia</i>	403
<i>Pothos cordata</i>	402	<i>rata</i>	177	<i>grandiflora</i>	347, 393
<i>crassinervis</i>	453	<i>Rosa</i>	432	<i>reflexa</i>	355
<i>lanceolata</i>	454	<i>6 sp.</i>	173	<i>Stellaria latifolia, a syn. of</i>	
<i>Prenanthes alba</i>	450	<i>var. Herbemonti gran-</i>		<i>Ornithogalum latifol-</i>	
<i>Proscotia colorans</i>	230	<i>diflora</i>	248	<i>um</i>	420
<i>Primula auricula</i>	420	<i>Biebersteini L.</i>	77	<i>Stenactis speciosa</i>	402
<i>pratensis</i>	43, 115	<i>ferox Bieb.</i>	77	<i>Strelitzia</i>	402
<i>venusta</i>	420	<i>kamachatica Red</i>	77	<i>angusta</i>	403
<i>Prinos glaber</i>	36	<i>The three last are iden-</i>		<i>humilis</i>	403
<i>Prostranthra linearis</i>	73	<i>tical.</i>		<i>junccea</i>	207, 402, 431
<i>Prötea, 8 sp.</i>	403	<i>Kurtz</i>	129	<i>regina</i>	72, 403
<i>Prunella vulgaris</i>	450	<i>Lawrenceana</i>	452	<i>Stranvaesia glauca</i>	298
<i>Psamma</i>	443	<i>lutea</i>	108	<i>Streptopus roseus</i>	411
<i>Psidium pyrifera</i>	104	<i>var.</i>	108	<i>Styidium adnatum</i>	165
<i>Psoralea orbicularis</i>	370	<i>macrophylla</i>	377	<i>Sutherlandia frutescens</i>	454
<i>Pteris aquilina</i>	413	<i>ruginosa</i>	411, 450	<i>Swietenia Mahagoni</i>	454
<i>Pulmonaria virginica</i>	443	<i>rubra</i>	172	<i>Tabernaemontana coronaria</i>	454
<i>Pycnanthemum</i>	41	<i>Rubus</i>	350		
<i>Pyrola, 4 sp.</i>	419	<i>Rudbeckia amplexicaulis</i>	451	<i>Tacsonia pinnatifida</i>	454
<i>rotundifolia</i>	450	<i>hirta</i>	452		
<i>Pyrus japonica</i>	403	<i>Ruellia depressa, a syn. of</i>		<i>Tamarindus indica</i>	454
<i>Quassia amara</i>	454	<i>Aptosimum depressum</i>		<i>Tamus</i>	402
<i>Quercus Sæber</i>	352		180	<i>elephantipes</i>	352, 403
<i>Ranunculus Clitoni</i>	411	<i>salicifolia</i>	454	<i>Taraxacum palustre</i>	350
<i>prostratus, a syn. of R.</i>		<i>Russelia junccea</i>	204, 301, 454	<i>Tarchonanthus camphoratus</i>	454
<i>Clitoni</i>	411	<i>Sabbatia chloroides</i>	442		
<i>Rehmannia chinensis</i>	344	<i>Saccharum officinarum</i>	401	<i>Taxus chinensis</i>	454
<i>glutinosa, a syn. of chi-</i>			454	<i>nucifera</i>	454
<i>nensis</i>	344	<i>Sagittaria sagittifolia var.</i>		<i>Tecoma australis</i>	454
<i>Renanthera coccinea</i>	257	<i>gracilis</i>	442	<i>Terminalia Benzoin</i>	454
<i>Reseda odorata</i>	37	<i>Salpiglossis linearis a syn.</i>		<i>Catappa</i>	454
<i>Rhapis flabelliformis</i>	454	<i>of Patania intermedia</i>		<i>Thaictum</i>	349
<i>Rhinanthus Crista-galli</i>	442		225	<i>Tha. Bekke</i>	454
<i>Rhododendron</i>	403, 416, 432	<i>picta</i>	315	<i>viridis</i>	454
<i>var. Seymouri</i>	371	<i>Salix tristis</i>	412	<i>Theophrasta</i>	408
<i>album</i>	371	<i>Salvia fulgens</i>	450	<i>Thrinax elegans</i>	454
<i>arborescens</i>	98, 212, 234, 324	<i>involucrata</i>	186	<i>parviflora</i>	402, 456
	330, 354, 371, 372, 401	<i>splendens</i>	182, 186	<i>Thunbergia coccinea</i>	454
<i>var. alta-clerensis</i>	73, 98	<i>Sambucus pubescens</i>	412	<i>fragrans</i>	454
	100, 168, 432	<i>Sanguisorba canadensis</i>	415	<i>grandiflora</i>	454
<i>var. cinnamomeum</i>	371		452	<i>Tigridia pavonia</i>	433
	372	<i>Sapindus saponaria</i>	454	<i>Tillandsia</i>	404
<i>var. hybridum</i>	72, 103	<i>Sarracenia purpurea</i>	222	<i>3 sp.</i>	
	168	<i>Saxifraga, 25 sp.</i>	403	<i>amaena</i>	454
<i>campanulatum</i>	372	<i>ligulata</i>	454	<i>Bromeliaefolia</i>	454
<i>catawbiense</i>	98, 372	<i>oppositifolia</i>	170	<i>Torenia scabra</i>	464
<i>caucasicum atrovirens</i>	176	<i>Scabiosa atropurpurea</i>	450	<i>Trevirana coccinea</i>	347, 393
<i>chamaecistus</i>	176	<i>Scaphyglottis violacea</i>	229	<i>Trichocentrum fuscum</i>	259
<i>Cunninghami</i>	233	<i>Schizanthus diffusus</i>	185	<i>Trichonema papurascens</i>	185
<i>ferrugineum</i>	432	<i>pinnatus</i>	185	<i>Trifolium furatum</i>	173
<i>luteum</i>	371	<i>retusus</i>	316	<i>Trigonidium obtusum</i>	320
<i>maximum</i>	315, 330, 372	<i>Schizopetalon Walkeri</i>	274	<i>Trillium grandiflorum</i>	411
<i>ponticum</i>	416	<i>Schötia speciosa</i>	276	<i> pictum</i>	233
<i>pulchrum—probably a</i>		<i>Scilla Cupaniæna</i>	229	<i>Tritelcia uniflora</i>	366
<i>syn. of Azalea indica</i>		<i>Scotia dentata</i>	454	<i>Tritonia</i>	366
<i>pulchra</i>	432	<i>Sedum, 25 sp.</i>	403	<i>crocata</i>	368
<i>Rhodora</i>	371	<i>azareum</i>	422	<i>xanthocephala</i>	368
<i>Russelliana</i>	31, 107, 165	<i>Sempervivum arborescens</i>	73	<i>Tropeolum azureum</i>	176
	168, 324, 431	<i>Shepherdia</i>	389	<i>brachyceras</i>	175, 221
<i>Smithii</i>	429	<i>argentea</i>	389, 391	<i>majus</i>	175
<i>var. elegans</i>	431	<i>Sisyrinchium graminifolium</i>		<i>var. atrosanguineum</i>	222
<i>viscosum, identical with</i>			184	<i>pentaphyllum</i>	175, 222
<i>Azalea viscosa</i>	416	<i>Solandra grandiflora</i>	103	<i>peregrinum</i>	175, 222
<i>Rhodora</i>	416	<i>Solidago</i>	450	<i>polyphyllum</i>	176
<i>canadense, a syn. of</i>		<i>tenifolia</i>	442	<i>tricolorum</i>	175, 221
<i>Rhododendron Rho-</i>		<i>Sollia heterophylla</i>	175	<i>Urania speciosa</i>	31, 35, 402
<i>dora</i>	371	<i>Sparaxis</i>	380	<i>Urtica</i>	41, 43
		<i>versicolor</i>	185	<i>Urena barbata</i>	36
<i>Ribes aureum</i>	108	<i>Sparmannia africana</i>	28		36, 451
		<i>Spartium acutifolium</i>	r	<i>Utricularia cornuta</i>	443
		<i>Spiraea</i>	103	<i>infata</i>	443

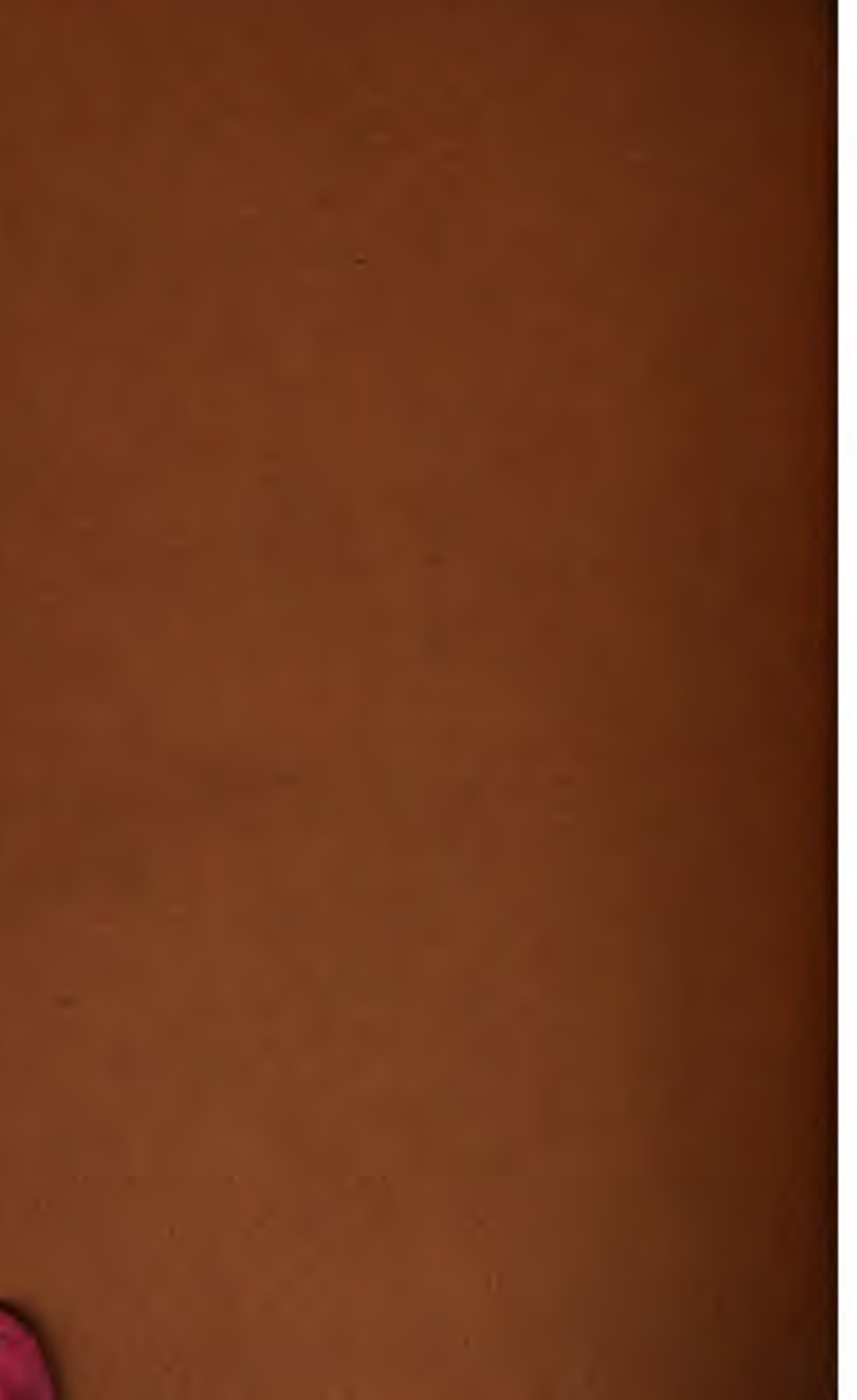


<i>Utricularia purpurea</i>	443	<i>Veronica</i> 10 sp.	294	<i>Xylophylla</i>	454
<i>Vaccinium macrocarpum</i>	450	<i>spicata pumila</i>	423	<i>Xylostenum ciliatum</i>	411
<i>Vallota purpurea</i>	394. 450	<i>Viburnum lantanoides</i>	411	<i>Yucca dracónis</i>	232
<i>Vanilla planifolia</i>	426	<i>tomentosa</i>	455	<i>filamentosa</i>	233. 236. 317
<i>Veltheimia viridiflora</i>	105	<i>Vicia sativa</i>	412	<i>fiaccida</i>	355
<i>Verbascum</i>	41. 349. 450	<i>Victoria reginae</i> —should be		<i>gloriosa</i>	232. 394
<i>compacta</i>	315	<i>V. regalis</i>	496	<i>variegata</i> . (No such sp.	
<i>Verbena Aubletia</i>	115. 356	<i>Viola clandestina</i>	412	in <i>Hort. Brit.</i> )	452
<i>374. 422. 435. 450</i>		<i>tricolor</i>	433	<i>Zamia</i>	409
<i>chamedrifolia</i>	43. 139	<i>Watsonia</i> , 6 sp.	366	3 sp.	454
<i>163. 182. 183. 225. 315</i>		<i>Wigandia caracasana</i>	345	8 sp.	403
<i>Drummondia</i>	374. 422. 435. 450	<i>Wistaria Consequana</i>	193. 162	<i>horrida</i>	906. 402. 431. 454
<i>Drummondia</i>	374	<i>186. 274. 306. 313. 348</i>		<i>integrifolia</i>	207
<i>Mitadrea</i> , a syn. of <i>cha-</i>		<i>388. 424</i>		<i>lanuginosa</i>	401
<i>medrifolia</i>	43. 450	<i>Witsenia corymbosa</i>	185. 454	<i>pungens</i>	454
<i>Tweediaea</i>	139	<i>Woodia rudula</i>	411	<i>Zingiber officinale</i>	454
<i>225. 420. 454</i>		<i>Xanthoxylum fugiandifoli-</i>		<i>Zinnia violacea</i> var. <i>coccinea</i>	
<i>venosa</i>	182. 183. 354. 395	<i>um</i>	352	451. 452	
<i>Veronica</i>	349	<i>Xeranthemum fulgidum</i>	115		

END OF VOLUME THIRD.







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